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SALUS POPULI SUPREMA LEX ESTO

"The welfare of the people shall be the supreme law."



ROBIN CARNAHAN
SECRETARY OF STATE

MISSOURI
REGISTER

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Documents will be accepted for filing on all regular workdays from 8:00 a.m. until 5:00 p.m. We encourage early filings to facilitate the timely publication of the *Missouri Register*. Orders of Rulemaking appearing in the *Missouri Register* will be published in the *Code of State Regulations* and become effective as listed in the chart above. Advance notice of large volume filings will facilitate their timely publication. We reserve the right to change the schedule due to special circumstances. Please check the latest publication to verify that no changes have been made in this schedule. To review the entire year's schedule, please check out the website at <http://www.sos.mo.gov/adrules/pubsched.asp>

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RULES—Cite material in the *Missouri Register* by volume and page number, for example, Vol. 28, *Missouri Register*, page 27. The approved short form of citation is 28 MoReg 27.

The rules are codified in the *Code of State Regulations* in this system—

Title	Code of State Regulations	Division	Chapter	Rule
1	CSR	10-	1.	010
Department		Agency, Division	General area regulated	Specific area regulated

They are properly cited by using the full citation , i.e., 1 CSR 10-1.010.

Each department of state government is assigned a title. Each agency or division within the department is assigned a division number. The agency then groups its rules into general subject matter areas called chapters and specific areas called rules. Within a rule, the first breakdown is called a section and is designated as (1). Subsection is (A) with further breakdown into paragraph 1., subparagraph A., part (I), subpart (a), item I. and subitem a.

RSMo—The most recent version of the statute containing the section number and the date.

Rules appearing under this heading are filed under the authority granted by section 536.025, RSMo 2000. An emergency rule may be adopted by an agency if the agency finds that an immediate danger to the public health, safety, or welfare, or a compelling governmental interest requires emergency action; follows procedures best calculated to assure fairness to all interested persons and parties under the circumstances; follows procedures which comply with the protections extended by the *Missouri* and the *United States Constitutions*; limits the scope of such rule to the circumstances creating an emergency and requiring emergency procedure, and at the time of or prior to the adoption of such rule files with the secretary of state the text of the rule together with the specific facts, reasons, and findings which support its conclusion that there is an immediate danger to the public health, safety, or welfare which can be met only through the adoption of such rule and its reasons for concluding that the procedure employed is fair to all interested persons and parties under the circumstances.

Rules filed as emergency rules may be effective not less than ten (10) days after filing or at such later date as may be specified in the rule and may be terminated at any time by the state agency by filing an order with the secretary of state fixing the date of such termination, which order shall be published by the secretary of state in the *Missouri Register* as soon as practicable.

All emergency rules must state the period during which they are in effect, and in no case can they be in effect more than one hundred eighty (180) calendar days or thirty (30) legislative days, whichever period is longer. Emergency rules are not renewable, although an agency may at any time adopt an identical rule under the normal rulemaking procedures.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 1—General Rules**

EMERGENCY RULE

20 CSR 2063-1.010 Definitions

PURPOSE: This rule establishes various definitions and terms used in 20 CSR 2063.

EMERGENCY STATEMENT: During the Second Regular Session of the Ninety-fifth General Assembly, Conference Committee Substitute for Senate Committee Substitute for House Committee Substitute for House Bill Nos. 131I and 134I was passed. House Bill Nos. 131I and 134I are herein referred to as HB 131I. In part, this legislation created the Behavior Analyst Advisory Board to oversee the licensing of behavior analysts and assistant behavior analysts in the practice of applied behavior analysis.

HB 131I created a mandate for insurance coverage for services related to autism spectrum disorders. Specifically, a mandate that health benefit plans, as specified in section 376.1224, RSMo, must provide coverage for applied behavior analysis beginning January 1, 2011. In order to provide public protection related to applied behavior analysis, HB 131I also required that those providing applied behavior analyses be licensed in the state of Missouri.

HB 131I also identified the make-up of the board, established the duties and responsibilities of the board and State Committee of Psychologists, and required the promulgation of rules related to licensed behavior analysts and licensed assistant behavior analysts. The board must be appointed by the governor and confirmed by the senate prior to assuming their recommended duties regarding licensure and enforcement. At this time, the Behavior Analyst Advisory Board has not been appointed. Because of the January 1, 2011, insurance mandate, the State Committee of Psychologists appointed a subcommittee charged with promulgating rules related to the licensure and regulation of behavior analysts and assistant behavior analysts. The subcommittee held their first meeting on July 14, 2010, and held four (4) subsequent meetings to draft regulations necessary to implement the licensure component of HB 131I. Several stakeholders, which included behavior analysts, parents of children with autism spectrum disorders, and lobbyists were in attendance at the meetings and provided input to the committee's work. The committee also solicited individuals who would have an interest in the subcommittee's work and placed those individuals on a mailing list to receive regular updates of the subcommittee's activities and work products. The mailing list included practitioners in the area of autism spectrum disorders, health care administrators, parents of children with autism spectrum disorders, and lobbyists. These individuals were encouraged to submit written comments for the subcommittee's consideration. The comments were discussed during the subcommittee meetings and often resulted in changes to the text of the rule. The State Committee of Psychologists reviewed and approved the proposed rules on October 27, 2010.

Section 337.310.4, RSMo, authorizes the committee to review and resolve all applications for licensure until such time as the governor appoints the board and the board has a quorum. Terms defined in this rule are used in 20 CSR 2063-2.005. While section 337.310.3, RSMo, indicates the board is required to make recommendations to the committee related to rules and regulations, other sections throughout sections 337.300 through 337.345, RSMo, authorize the committee to promulgate rules to carry out that authority. Such sections include but are not limited to:

- Sections 337.315.2(2), 337.320.7, and 337.320.8(2), RSMo, authorizes to set fees;
- Section 337.315.4, RSMo, authorizes issuance of temporary permits;
- Section 337.315.8, RSMo, authorizes established code of conduct; and
- Section 337.315.9, RSMo, authorizes establishment of a supervision rule.

This emergency rule is necessary to preserve a compelling governmental interest by establishing terms used throughout these rules which will allow consistent administration and enforcement of these rules.

The legislation required coverage for services by autism service providers effective January 1, 2011. Autism service providers must be providers of diagnostic or treatment services for autism spectrum disorders and be licensed by the state of Missouri or be licensed as a behavior analyst or assistant behavior analyst. If the committee is unable to begin licensing behavior analysts and assistant behavior analysts in mid-December, applicants will not be able to complete the application process, and the committee will have little to no time to review and resolve the applications prior to January 1, 2011. If the behavior analysts or assistant behavior analysts are not licensed by January 1, 2011, parents who wish to seek reimbursement of services may not be able to do so until the behavior analyst or assistant behavior analyst has been licensed by the state of Missouri. This could result in families being compelled to seek another provider of such services which could result in a negative impact to a child with autism spectrum disorder. Studies have proven that early and timely

intervention is key to enhancing the lives of children with autism spectrum disorder.

Immediate adoption of this rule will allow an early effective date to define terms used throughout the rules, including those related to licensing applicants, which are necessary for the board to conduct business at the onset of licensure. Defining terms will allow the board to consistently conduct its business and licensed behavior analysts and assistant behavior analysts to have a clear understanding of the terms used throughout these rules.

As a result, the State Committee of Psychologists finds that there is a compelling governmental interest that requires this emergency action. A proposed rule, which covers the same material, is published in this issue of the *Missouri Register*. The scope of this emergency rule is limited to the circumstances creating the emergency and complies with the protections extended in the *Missouri* and *United States Constitutions*. The State Committee of Psychologists believes this emergency rule is fair to all interested persons and parties under the circumstances. This emergency rule was filed November 30, 2010, becomes effective December 10, 2010, and expires June 7, 2011.

(1) Applicant—An individual applying for licensure as a behavior analyst or assistant behavior analyst.

(2) Certifying entity—Behavior Analyst Certification Board (BACB)[®], 2888 Remington Green Lane, Suite C, Tallahassee, FL 32308 and approved by the committee.

(3) Committee—State Committee of Psychologists as established in section 337.050, RSMo.

(4) Division—Division of Professional Registration.

(5) Department—Department of Insurance, Financial Institutions and Professional Registration.

(6) Family Care Safety Registry—The registry established by the Missouri Department of Health and Senior Services pursuant to section 210.903, RSMo.

AUTHORITY: section 337.310, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. A proposed rule, which covers the same material, is published in this issue of the Missouri Register.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 1—General Rules**

EMERGENCY RULE

20 CSR 2063-1.015 Fees

PURPOSE: This rule establishes and fixes the various fees and charges authorized by Chapter 337, RSMo.

EMERGENCY STATEMENT: During the Second Regular Session of the Ninety-fifth General Assembly, Conference Committee Substitute for Senate Committee Substitute for House Committee Substitute for House Bill Nos. 1311 and 1341 was passed. House Bill Nos. 1311 and 1341 are herein referred to as HB 1311. In part, this legislation created the Behavior Analyst Advisory Board to oversee the licensing of behavior analysts and assistant behavior analysts in the practice of applied behavior analysis.

HB 1311 created a mandate for insurance coverage for services related to autism spectrum disorders. Specifically, a mandate that

health benefit plans, as specified in section 376.1224, RSMo, must provide coverage for applied behavior analysis beginning January 1, 2011. In order to provide public protection related to applied behavior analysis, HB 1311 also required that those providing applied behavior analyses be licensed in the state of Missouri. The legislation also created the Behavior Analyst Advisory Board to make recommendations to the State Committee of Psychologists related to the licensure and regulation of behavior analysts and assistant behavior analysts. HB 1311 also identified the make-up of the board, established the duties and responsibilities of the board and State Committee of Psychologists, and required the promulgation of rules related to licensed behavior analysts and licensed assistant behavior analysts.

The board must be appointed by the governor and confirmed by the senate prior to assuming their recommended duties regarding licensure and enforcement. At this time, the Behavior Analyst Advisory Board has not been appointed. Because of the January 1, 2011, insurance mandate, the State Committee of Psychologists appointed a subcommittee charged with promulgating rules related to the licensure and regulation of behavior analysts and assistant behavior analysts. The subcommittee held their first meeting on July 14, 2010, and held four (4) subsequent meetings to draft regulations necessary to implement the licensure component of HB 1311. Several stakeholders, which included behavior analysts, parents of children with autism spectrum disorders, and lobbyists were in attendance at the meetings and provided input to the committee's work. The committee also solicited individuals who would have an interest in the subcommittee's work and placed those individuals on a mailing list to receive regular updates of the subcommittee's activities and work products. The mailing list included practitioners in the area of autism spectrum disorders, health care administrators, parents of children with autism spectrum disorders, and lobbyists. These individuals were encouraged to submit written comments for the subcommittee's consideration. The comments were discussed during the subcommittee meetings and often resulted in changes to the text of the rule. The State Committee of Psychologists reviewed and approved the proposed rules on October 27, 2010.

Section 337.310.4, RSMo, authorizes the committee to review and resolve all applications for licensure until such time as the governor appoints the board and the board has a quorum. Terms defined in this rule are used in 20 CSR 2063-2.005. While section 337.310.3, RSMo, indicates the board is required to make recommendations to the committee related to rules and regulations, other sections throughout sections 337.300 through 337.345, RSMo, authorize the committee to promulgate rules to carry out that authority. Such sections include but are not limited to:

- Sections 337.315.2(2), 337.320.7, and 337.320.8(2), RSMo, authorizes to set fees;*
- Section 337.315.4, RSMo, authorizes issuance of temporary permits;*
- Section 337.315.8, RSMo, authorizes established code of conduct; and*
- Section 337.315.9, RSMo, authorizes establishment of a supervision rule.*

The legislation required coverage for services by autism service providers effective January 1, 2011. Autism service providers must be providers of diagnostic or treatment services for autism spectrum disorders and be licensed by the state of Missouri or be licensed as a behavior analyst or assistant behavior analyst. If the committee is unable to begin licensing behavior analysts and assistant behavior analysts in mid-December, applicants will not be able to complete the application process, and the committee will have little to no time to review and resolve the applications prior to January 1, 2011. If the behavior analysts or assistant behavior analysts are not licensed by January 1, 2011, parents who wish to seek reimbursement of services may not be able to do so until the behavior analyst or assistant behavior analyst has been licensed by the state of Missouri. This

could result in families being compelled to seek another provider of such services which could result in a negative impact to a child with autism spectrum disorder. Studies have proven that early and timely intervention is key to enhancing the lives of children with autism spectrum disorder.

This emergency rule is necessary to preserve a compelling governmental interest by establishing the fees necessary to support regulation and enforcement activities related to the administration of sections 337.300 through 337.345, RSMo. Pursuant to section 337.340, RSMo, all fees authorized under sections 337.300 through 337.340, RSMo, shall be deposited in the state treasury to the credit of the State Committee of Psychologists Fund. Section 337.030, RSMo, establishes the State Committee of Psychologists Fund. Pursuant to subsection 337.030.4, RSMo, all fees shall be set at a level to produce revenue which shall not substantially exceed the cost and expense of administering sections 337.010 to 337.090, RSMo.

Immediate adoption of this rule will set the fees for application for a behavior analyst or assistant behavior analyst as well as fees associated with renewal and reactivation and fees for checks returned for insufficient funds and declares that all fees are nonrefundable. Setting fees will allow the board to accept and process applications and license behavior analysts and assistant behavior analysts before January 1, 2011, so that their services can be covered.

As a result, the State Committee of Psychologists finds that there is a compelling governmental interest that requires this emergency action. A proposed rule, which covers the same material, is published in this issue of the *Missouri Register*. The scope of this emergency rule is limited to the circumstances creating the emergency and complies with the protections extended in the *Missouri* and *United States Constitutions*. The State Committee of Psychologists believes this emergency rule is fair to all interested persons and parties under the circumstances. This emergency rule was filed November 30, 2010, becomes effective December 10, 2010, and expires June 7, 2011.

(1) The following fees are established for the Behavior Analyst Advisory Board and are payable to the State Committee of Psychologists:

(A) Application Fee for Behavior Analyst	\$150
(B) Application Fee for Assistant Behavior Analyst	\$150
(C) Biennial Renewal Fee	\$150
(D) Delinquency Fee (in addition to the Renewal Fee)	\$ 50
(E) Inactive Renewal Fee	\$ 50
(F) Inactive Reactivation Fee (section 337.320.8, RSMo)	\$100
(G) Insufficient Check Fee	\$ 25

(2) All fees are nonrefundable.

(3) The provisions of this rule are declared severable. If any fee fixed by this rule is held invalid by a court of competent jurisdiction or by the Administrative Hearing Commission, the remaining provisions of this rule shall remain in full force and effect, unless otherwise determined by a court of competent jurisdiction or by the Administrative Hearing Commission.

AUTHORITY: sections 337.310, 337.315, 337.320, and 337.340, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. A proposed rule, which covers the same material, is published in this issue of the *Missouri Register*.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION**

**Division 2063—Behavior Analyst Advisory Board
Chapter 2—Licensure Requirements**

EMERGENCY RULE

20 CSR 2063-2.005 Application for Licensure

PURPOSE: This rule outlines the procedures to apply for licensure and temporary permits for behavior analysts and assistant behavior analysts.

EMERGENCY STATEMENT: During the Second Regular Session of the Ninety-fifth General Assembly, Conference Committee Substitute for Senate Committee Substitute for House Committee Substitute for House Bill Nos. 1311 and 1341 was passed. House Bill Nos. 1311 and 1341 are herein referred to as HB 1311. In part, this legislation created the Behavior Analyst Advisory Board to oversee the licensing of behavior analysts and assistant behavior analysts in the practice of applied behavior analysis.

HB 1311 created a mandate for insurance coverage for services related to autism spectrum disorders. Specifically, a mandate that health benefit plans, as specified in section 376.1224, RSMo, must provide coverage for applied behavior analysis beginning January 1, 2011. In order to provide public protection related to applied behavior analysis, HB 1311 also required that those providing applied behavior analyses be licensed in the state of Missouri. The legislation also created the Behavior Analyst Advisory Board to make recommendations to the State Committee of Psychologists related to the licensure and regulation of behavior analysts and assistant behavior analysts. HB 1311 also identified the make-up of the board, established the duties and responsibilities of the board and State Committee of Psychologists, and required the promulgation of rules related to licensed behavior analysts and licensed assistant behavior analysts.

The board must be appointed by the governor and confirmed by the senate prior to assuming their recommended duties regarding licensure and enforcement. At this time, the Behavior Analyst Advisory Board has not been appointed. Because of the January 1, 2011, insurance mandate, the State Committee of Psychologists appointed a subcommittee charged with promulgating rules related to the licensure and regulation of behavior analysts and assistant behavior analysts. The subcommittee held their first meeting on July 14, 2010, and held four (4) subsequent meetings to draft regulations necessary to implement the licensure component of HB 1311. Several stakeholders, which included behavior analysts, parents of children with autism spectrum disorders, and lobbyists were in attendance at the meetings and provided input to the committee's work. The committee also solicited individuals who would have an interest in the subcommittee's work and placed those individuals on a mailing list to receive regular updates of the subcommittee's activities and work products. The mailing list included practitioners in the area of autism spectrum disorders, health care administrators, parents of children with autism spectrum disorders, and lobbyists. These individuals were encouraged to submit written comments for the subcommittee's consideration. The comments were discussed during the subcommittee meetings and often resulted in changes to the text of the rule. The State Committee of Psychologists reviewed and approved the proposed rules on October 27, 2010.

Section 337.310.4, RSMo, authorizes the committee to review and resolve all applications for licensure until such time as the governor appoints the board and the board has a quorum. Terms defined in this rule are used in 20 CSR 2063-2.005. While section 337.310.3, RSMo, indicates the board is required to make recommendations to the committee related to rules and regulations, other sections throughout sections 337.300 through 337.345, RSMo, authorize the committee to promulgate rules to carry out that authority. Such sections include but are not limited to:

- Sections 337.315.2(2), 337.320.7, and 337.320.8(2), RSMo, authorizes to set fees;
- Section 337.315.4, RSMo, authorizes issuance of temporary permits;
- Section 337.315.8, RSMo, authorizes established code of conduct; and
- Section 337.315.9, RSMo, authorizes establishment of a supervision rule.

The legislation required coverage for services by autism service providers effective January 1, 2011. Autism service providers must be providers of diagnostic or treatment services for autism spectrum disorders and be licensed by the state of Missouri or be licensed as a behavior analyst or assistant behavior analyst. If the committee is unable to begin licensing behavior analysts and assistant behavior analysts in mid-December, applicants will not be able to complete the application process, and the committee will have little to no time to review and resolve the applications prior to January 1, 2011. If the behavior analysts or assistant behavior analysts are not licensed by January 1, 2011, parents who wish to seek reimbursement of services may not be able to do so until the behavior analyst or assistant behavior analyst has been licensed by the state of Missouri. This could result in families being compelled to seek another provider of such services which could result in a negative impact to a child with autism spectrum disorder. Studies have proven that early and timely intervention is key to enhancing the lives of children with autism spectrum disorder.

This emergency rule is necessary to preserve a compelling governmental interest requiring those providing behavior analyses to be licensed on or before January 1, 2011.

Immediate adoption of this rule will set out the requirements for application for licensure for behavior analysts and assistant behavior analysts and provide the board the necessary criteria by which it makes decisions regarding each application. Because not all of the criteria are set out in section 337.315, RSMo, this rule is necessary for the board to be able to license this profession before January 1, 2011.

*As a result, the State Committee of Psychologists finds that there is a compelling governmental interest that requires this emergency action. A proposed rule, which covers the same material, is published in this issue of the **Missouri Register**. The scope of this emergency rule is limited to the circumstances creating the emergency and complies with the protections extended in the **Missouri and United States Constitutions**. The State Committee of Psychologists believes this emergency rule is fair to all interested persons and parties under the circumstances. This emergency rule was filed November 30, 2010, becomes effective December 10, 2010, and expires June 7, 2011.*

(1) Applications for licensure pursuant to section 337.315, RSMo, shall be submitted on the form which may be obtained by contacting the Behavior Analyst Advisory Board.

(2) Behavior Analyst License.

(A) Applicants applying for licensure as a behavior analyst shall submit—

1. A completed application for licensure which is typewritten or printed in black ink, signed, and notarized;
2. The appropriate licensure fee pursuant to 20 CSR 2063-1.015;
3. One (1) recent photograph, pursuant to section 337.315.1, RSMo, of the applicant's head and shoulders (commonly known as passport style) that fairly depicts the applicant's appearance;
4. Proof of submission of fingerprints to the Missouri State Highway Patrol's approved vendor for both a Missouri State Highway Patrol and Federal Bureau of Investigation (FBI) fingerprint background check. Any fees due for fingerprint background checks shall be paid by the applicant;
5. Proof of having passed an examination and been certified as a board-certified behavior analyst from a certifying entity as defined pursuant to 20 CSR 2063-1.010;
6. Proof of active status as a board-certified behavior analyst; and
7. Verification of licensure in any other state in which the applicant holds a license as a behavior analyst. Verification of licensure must be received by the board directly from the issuing state agency.

(3) Assistant Behavior Analyst License.

(A) Applicants applying for licensure as an assistant behavior analyst shall submit—

1. A completed application for licensure which is typewritten or printed in black ink, signed, and notarized;
2. The appropriate licensure fee pursuant to 20 CSR 2063-1.015;
3. One (1) recent photograph, pursuant to section 337.315.1, RSMo, of the applicant's head and shoulders (commonly known as passport style) that fairly depicts the applicant's appearance;
4. Proof of submission of fingerprints to the Missouri State Highway Patrol's approved vendor for both a Missouri State Highway Patrol and Federal Bureau of Investigation (FBI) fingerprint background check. Any fees due for fingerprint background checks shall be paid by the applicant;
5. Proof of having passed an examination and been certified as a board-certified assistant behavior analyst from a certifying entity as defined pursuant to 20 CSR 2063-1.010;
6. Proof of active status as a board-certified assistant behavior analyst;
7. Verification of licensure in any other state in which the applicant holds a license as an assistant behavior analyst. Verification of licensure must be received by the board directly from the issuing state agency; and
8. Proof the applicant will be directly supervised by a licensed behavior analyst on a form provided by the board.

(4) Temporary License.

(A) Applicants who are licensed in another state requesting a temporary license shall—

1. Meet the respective requirements of section (2) or (3) of this rule;
2. Submit a copy of a valid license issued in another state; and
3. Have no disqualifying criminal history appear on the Family Care Safety Registry.

(B) Temporary licenses shall expire upon issuance of a permanent license or denial of the application but no later than ninety (90) days from issuance of the temporary license.

(C) Holders of a temporary license requesting an extension shall submit a written request to the committee. As provided by section 337.315.4, RSMo, the temporary license may be extended one (1) time by the committee.

(5) The applicant shall be informed in writing of the decision regarding the application for licensure.

(6) The board or committee may delegate the preliminary review of license applications to the executive director.

*AUTHORITY: sections 337.315 and 337.345, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. A proposed rule, which covers the same material, is published in this issue of the **Missouri Register**.*

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION**

**Division 2063—Behavior Analyst Advisory Board
Chapter 2—Licensure Requirements**

EMERGENCY RULE

20 CSR 2063-2.015 Notification of Change of Address

PURPOSE: This rule establishes the obligation of licensees to inform the Behavior Analyst Advisory Board of their changes of address.

EMERGENCY STATEMENT: During the Second Regular Session of the Ninety-fifth General Assembly, Conference Committee Substitute for Senate Committee Substitute for House Committee Substitute for House Bill Nos. 131I and 134I was passed. House Bill Nos. 131I and 134I are herein referred to as HB 131I. In part, this legislation created the Behavior Analyst Advisory Board to oversee the licensing of behavior analysts and assistant behavior analysts in the practice of applied behavior analysis.

HB 131I created a mandate for insurance coverage for services related to autism spectrum disorders. Specifically, a mandate that health benefit plans, as specified in section 376.1224, RSMo, must provide coverage for applied behavior analysis beginning January 1, 2011. In order to provide public protection related to applied behavior analysis, HB 131I also required that those providing applied behavior analyses be licensed in the state of Missouri. The legislation also created the Behavior Analyst Advisory Board to make recommendations to the State Committee of Psychologists related to the licensure and regulation of behavior analysts and assistant behavior analysts. HB 131I also identified the make-up of the board, established the duties and responsibilities of the board and State Committee of Psychologists, and required the promulgation of rules related to licensed behavior analysts and licensed assistant behavior analysts.

The legislation required coverage for services by autism service providers. Autism service providers must be providers of diagnostic or treatment services for autism spectrum disorders and be licensed by the state of Missouri or be licensed as a behavior analyst or assistant behavior analyst.

The board must be appointed by the governor and confirmed by the senate prior to assuming their recommended duties regarding licensure and enforcement. At this time, the Behavior Analyst Advisory Board has not been appointed. Because of the January 1, 2011, insurance mandate, the State Committee of Psychologists appointed a subcommittee charged with promulgating rules related to the licensure and regulation of behavior analysts and assistant behavior analysts. The subcommittee held their first meeting on July 14, 2010, and held four (4) subsequent meetings to draft regulations necessary to implement the licensure component of HB 131I. Several stakeholders, which included behavior analysts, parents of children with autism spectrum disorders, and lobbyists were in attendance at the meetings and provided input to the committee's work. The committee also solicited individuals who would have an interest in the subcommittee's work and placed those individuals on a mailing list to receive regular updates of the subcommittee's activities and work products. The mailing list included practitioners in the area of autism spectrum disorders, health care administrators, parents of children with autism spectrum disorders, and lobbyists. These individuals were encouraged to submit written comments for the subcommittee's consideration. The comments were discussed during the subcommittee meetings and often resulted in changes to the text of the rule. The State Committee of Psychologists reviewed and approved the proposed rules on October 27, 2010.

Section 337.310.4, RSMo, authorizes the committee to review and resolve all applications for licensure until such time as the governor appoints the board and the board has a quorum. Terms defined in this rule are used in 20 CSR 2063-2.005. While section 337.310.3, RSMo, indicates the board is required to make recommendations to the committee related to rules and regulations, other sections throughout sections 337.300 through 337.345, RSMo, authorize the committee to promulgate rules to carry out that authority. Such sections include but are not limited to:

- Sections 337.315.2(2), 337.320.7, and 337.320.8(2), RSMo, authorizes to set fees;
- Section 337.315.4, RSMo, authorizes issuance of temporary permits;
- Section 337.315.8, RSMo, authorizes established code of conduct; and

- Section 337.315.9, RSMo, authorizes establishment of a supervision rule.

The legislation required coverage for services by autism service providers effective January 1, 2011. Autism service providers must be providers of diagnostic or treatment services for autism spectrum disorders and be licensed by the state of Missouri or be licensed as a behavior analyst or assistant behavior analyst. If the committee is unable to begin licensing behavior analysts and assistant behavior analysts in mid-December, applicants will not be able to complete the application process, and the committee will have little to no time to review and resolve the applications prior to January 1, 2011. If the behavior analysts or assistant behavior analysts are not licensed by January 1, 2011, parents who wish to seek reimbursement of services may not be able to do so until the behavior analyst or assistant behavior analyst has been licensed by the state of Missouri. This could result in families being compelled to seek another provider of such services which could result in a negative impact to a child with autism spectrum disorder. Studies have proven that early and timely intervention is key to enhancing the lives of children with autism spectrum disorder.

Immediate adoption of this rule is essential because it requires licensees of the board to notify the board within thirty (30) days of a change of address. Because protection of the public is the essential purpose of the board, it is necessary that the board be able to maintain contact with licensees. Therefore, adoption of this rule is necessary for the board to carry out its essential function.

As a result, the State Committee of Psychologists finds that there is a compelling governmental interest that requires this emergency action. A proposed rule, which covers the same material, is published in this issue of the **Missouri Register**. The scope of this emergency rule is limited to the circumstances creating the emergency and complies with the protections extended in the **Missouri and United States Constitutions**. The State Committee of Psychologists believes this emergency rule is fair to all interested persons and parties under the circumstances. This emergency rule was filed November 30, 2010, becomes effective December 10, 2010, and expires June 7, 2011.

- (1) Within thirty (30) days of the effective date of the change, a licensee must inform the board of all changes in the mailing address as it appears on the licensee's license by contacting the Behavior Analyst Advisory Board in writing.

AUTHORITY: section 337.310, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. A proposed rule, which covers the same material, is published in this issue of the **Missouri Register**.

Title 20—DEPARTMENT OF INSURANCE, FINANCIAL INSTITUTIONS AND PROFESSIONAL REGISTRATION

Division 2063—Behavior Analyst Advisory Board Chapter 3—Certifying Entities

EMERGENCY RULE

20 CSR 2063-3.005 Certifying Entities

PURPOSE: This rule establishes the certifying entities acceptable to the board.

EMERGENCY STATEMENT: During the Second Regular Session of the Ninety-fifth General Assembly, Conference Committee Substitute for Senate Committee Substitute for House Committee Substitute for House Bill Nos. 131I and 134I was passed. House Bill Nos. 131I and 134I are herein referred to as HB 131I. In part, this legislation created the Behavior Analyst Advisory Board to oversee the licensing of

behavior analysts and assistant behavior analysts in the practice of applied behavior analysis.

HB 1311 created a mandate for insurance coverage for services related to autism spectrum disorders. Specifically, a mandate that health benefit plans, as specified in section 376.1224, RSMo, must provide coverage for applied behavior analysis beginning January 1, 2011. In order to provide public protection related to applied behavior analysis, HB 1311 also required that those providing applied behavior analyses be licensed in the state of Missouri. The legislation also created the Behavior Analyst Advisory Board to make recommendations to the State Committee of Psychologists related to the licensure and regulation of behavior analysts and assistant behavior analysts. HB 1311 also identified the make-up of the board, established the duties and responsibilities of the board and State Committee of Psychologists, and required the promulgation of rules related to licensed behavior analysts and licensed assistant behavior analysts.

The board must be appointed by the governor and confirmed by the senate prior to assuming their recommended duties regarding licensure and enforcement. At this time, the Behavior Analyst Advisory Board has not been appointed. Because of the January 1, 2011, insurance mandate, the State Committee of Psychologists appointed a subcommittee charged with promulgating rules related to the licensure and regulation of behavior analysts and assistant behavior analysts. The subcommittee held their first meeting on July 14, 2010, and held four (4) subsequent meetings to draft regulations necessary to implement the licensure component of HB 1311. Several stakeholders, which included behavior analysts, parents of children with autism spectrum disorders, and lobbyists were in attendance at the meetings and provided input to the committee's work. The committee also solicited individuals who would have an interest in the subcommittee's work and placed those individuals on a mailing list to receive regular updates of the subcommittee's activities and work products. The mailing list included practitioners in the area of autism spectrum disorders, health care administrators, parents of children with autism spectrum disorders, and lobbyists. These individuals were encouraged to submit written comments for the subcommittee's consideration. The comments were discussed during the subcommittee meetings and often resulted in changes to the text of the rule. The State Committee of Psychologists reviewed and approved the proposed rules on October 27, 2010.

Section 337.310.4, RSMo, authorizes the committee to review and resolve all applications for licensure until such time as the governor appoints the board and the board has a quorum. Terms defined in this rule are used in 20 CSR 2063-2.005. While section 337.310.3, RSMo, indicates the board is required to make recommendations to the committee related to rules and regulations, other sections throughout sections 337.300 through 337.345, RSMo, authorize the committee to promulgate rules to carry out that authority. Such sections include but are not limited to:

- Sections 337.315.2(2), 337.320.7, and 337.320.8(2), RSMo, authorizes to set fees;
- Section 337.315.4, RSMo, authorizes issuance of temporary permits;
- Section 337.315.8, RSMo, authorizes established code of conduct; and
- Section 337.315.9, RSMo, authorizes establishment of a supervision rule.

The legislation required coverage for services by autism service providers effective January 1, 2011. Autism service providers must be providers of diagnostic or treatment services for autism spectrum disorders and be licensed by the state of Missouri or be licensed as a behavior analyst or assistant behavior analyst. If the committee is unable to begin licensing behavior analysts and assistant behavior analysts in mid-December, applicants will not be able to complete the application process, and the committee will have little to no time to review and resolve the applications prior to January 1, 2011. If the

behavior analysts or assistant behavior analysts are not licensed by January 1, 2011, parents who wish to seek reimbursement of services may not be able to do so until the behavior analyst or assistant behavior analyst has been licensed by the state of Missouri. This could result in families being compelled to seek another provider of such services which could result in a negative impact to a child with autism spectrum disorder. Studies have proven that early and timely intervention is key to enhancing the lives of children with autism spectrum disorder.

Section 337.310, RSMo, authorizes the establishment of certifying entity qualifications. Because certification is a necessary component for licensure, this emergency rule is necessary to preserve a compelling governmental interest by providing the criteria for meeting that component.

Immediate adoption of this rule is essential because it states the entities the board will accept as those acceptable to certify behavior analysts and assistant behavior analysts.

As a result, the State Committee of Psychologists finds that there is a compelling governmental interest that requires this emergency action. A proposed rule, which covers the same material, is published in this issue of the *Missouri Register*. The scope of this emergency rule is limited to the circumstances creating the emergency and complies with the protections extended in the *Missouri and United States Constitutions*. The State Committee of Psychologists believes this emergency rule is fair to all interested persons and parties under the circumstances. This emergency rule was filed November 30, 2010, becomes effective December 10, 2010, and expires June 7, 2011.

(1) A certifying entity shall be accredited to certify practitioners of applied behavior analysis by a nationally-recognized agency including but not limited to:

- (A) National Commission for Certifying Agencies; or
- (B) American National Standards Institute.

AUTHORITY: section 337.310.1, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. A proposed rule, which covers the same material, is published in this issue of the Missouri Register.

Title 20—DEPARTMENT OF INSURANCE, FINANCIAL INSTITUTIONS AND PROFESSIONAL REGISTRATION

Division 2063—Behavior Analyst Advisory Board Chapter 4—Education and Training Requirements

EMERGENCY RULE

20 CSR 2063-4.005 Education and Training Requirements

PURPOSE: This rule establishes the education and training requirements for licensed behavior analysts and licensed assistant behavior analysts pursuant to section 337.310, RSMo.

EMERGENCY STATEMENT: During the Second Regular Session of the Ninety-fifth General Assembly, Conference Committee Substitute for Senate Committee Substitute for House Committee Substitute for House Bill Nos. 1311 and 1341 was passed. House Bill Nos. 1311 and 1341 are herein referred to as HB 1311. In part, this legislation created the Behavior Analyst Advisory Board to oversee the licensing of behavior analysts and assistant behavior analysts in the practice of applied behavior analysis.

HB 1311 created a mandate for insurance coverage for services related to autism spectrum disorders. Specifically, a mandate that health benefit plans, as specified in section 376.1224, RSMo, must provide coverage for applied behavior analysis beginning January 1, 2011. In order to provide public protection related to applied behavior analysis, HB 1311 also required that those providing applied

behavior analyses be licensed in the state of Missouri. The legislation also created the Behavior Analyst Advisory Board to make recommendations to the State Committee of Psychologists related to the licensure and regulation of behavior analysts and assistant behavior analysts. HB 131I also identified the make-up of the board, established the duties and responsibilities of the board and State Committee of Psychologists, and required the promulgation of rules related to licensed behavior analysts and licensed assistant behavior analysts.

The board must be appointed by the governor and confirmed by the senate prior to assuming their recommended duties regarding licensure and enforcement. At this time, the Behavior Analyst Advisory Board has not been appointed. Because of the January 1, 2011, insurance mandate, the State Committee of Psychologists appointed a subcommittee charged with promulgating rules related to the licensure and regulation of behavior analysts and assistant behavior analysts. The subcommittee held their first meeting on July 14, 2010, and held four (4) subsequent meetings to draft regulations necessary to implement the licensure component of HB 131I. Several stakeholders, which included behavior analysts, parents of children with autism spectrum disorders, and lobbyists were in attendance at the meetings and provided input to the committee's work. The committee also solicited individuals who would have an interest in the subcommittee's work and placed those individuals on a mailing list to receive regular updates of the subcommittee's activities and work products. The mailing list included practitioners in the area of autism spectrum disorders, health care administrators, parents of children with autism spectrum disorders, and lobbyists. These individuals were encouraged to submit written comments for the subcommittee's consideration. The comments were discussed during the subcommittee meetings and often resulted in changes to the text of the rule. The State Committee of Psychologists reviewed and approved the proposed rules on October 27, 2010.

Section 337.310.4, RSMo, authorizes the committee to review and resolve all applications for licensure until such time as the governor appoints the board and the board has a quorum. Terms defined in this rule are used in 20 CSR 2063-2.005. While section 337.310.3, RSMo, indicates the board is required to make recommendations to the committee related to rules and regulations, other sections throughout sections 337.300 through 337.345, RSMo, authorize the committee to promulgate rules to carry out that authority. Such sections include but are not limited to:

- Sections 337.315.2(2), 337.320.7, and 337.320.8(2), RSMo, authorizes to set fees;
- Section 337.315.4, RSMo, authorizes issuance of temporary permits;
- Section 337.315.8, RSMo, authorizes established code of conduct; and
- Section 337.315.9, RSMo, authorizes establishment of a supervision rule.

The legislation required coverage for services by autism service providers effective January 1, 2011. Autism service providers must be providers of diagnostic or treatment services for autism spectrum disorders and be licensed by the state of Missouri or be licensed as a behavior analyst or assistant behavior analyst. If the committee is unable to begin licensing behavior analysts and assistant behavior analysts in mid-December, applicants will not be able to complete the application process, and the committee will have little to no time to review and resolve the applications prior to January 1, 2011. If the behavior analysts or assistant behavior analysts are not licensed by January 1, 2011, parents who wish to seek reimbursement of services may not be able to do so until the behavior analyst or assistant behavior analyst has been licensed by the state of Missouri. This could result in families being compelled to seek another provider of such services which could result in a negative impact to a child with autism spectrum disorder. Studies have proven that early and timely

intervention is key to enhancing the lives of children with autism spectrum disorder.

Section 337.310, RSMo, authorizes the establishment of education and training requirements. This emergency rule is necessary to preserve a compelling governmental interest by establishing the education and training requirements for behavior analysts and assistant behavior analysts who wish to seek reimbursement of their services. Therefore, this rule must be in place at the time the board begins to accept applications for licensure.

Immediate adoption of this rule is essential because it provides the educational requirements an applicant must meet as a part of the application process. Because proof of the educational requirements is essential for licensure, this rule provides essential information to the applicants and the board in considering applications for licensure.

As a result, the State Committee of Psychologists finds that there is a compelling governmental interest that requires this emergency action. A proposed rule, which covers the same material, is published in this issue of the *Missouri Register*. The scope of this emergency rule is limited to the circumstances creating the emergency and complies with the protections extended in the *Missouri and United States Constitutions*. The State Committee of Psychologists believes this emergency rule is fair to all interested persons and parties under the circumstances. This emergency rule was filed November 30, 2010, becomes effective December 10, 2010, and expires June 7, 2011.

(1) Applicants for licensure as a behavior analyst or assistant behavior analyst shall meet the education and training requirements and supervised clinical practicum experience required for eligibility to sit for the certification examination for their respective level offered by the certifying entity as defined in 20 CSR 2063-1.010.

AUTHORITY: section 337.310.1(3), RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. A proposed rule, which covers the same material, is published in this issue of the *Missouri Register*.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 5—Supervision**

EMERGENCY RULE

20 CSR 2063-5.005 Supervision of Assistant Behavior Analysts

PURPOSE: This rule establishes the characteristics of supervision for assistant behavior analysts.

EMERGENCY STATEMENT: During the Second Regular Session of the Ninety-fifth General Assembly, Conference Committee Substitute for Senate Committee Substitute for House Committee Substitute for House Bill Nos. 131I and 134I was passed. House Bill Nos. 131I and 134I are herein referred to as HB 131I. In part, this legislation created the Behavior Analyst Advisory Board to oversee the licensing of behavior analysts and assistant behavior analysts in the practice of applied behavior analysis.

HB 131I created a mandate for insurance coverage for services related to autism spectrum disorders. Specifically, a mandate that health benefit plans, as specified in section 376.1224, RSMo, must provide coverage for applied behavior analysis beginning January 1, 2011. In order to provide public protection related to applied behavior analysis, HB 131I also required that those providing applied behavior analyses be licensed in the state of Missouri. The legislation also created the Behavior Analyst Advisory Board to make recommendations to the State Committee of Psychologists related to the

licensure and regulation of behavior analysts and assistant behavior analysts. HB 1311 also identified the make-up of the board, established the duties and responsibilities of the board and State Committee of Psychologists, and required the promulgation of rules related to licensed behavior analysts and licensed assistant behavior analysts.

The board must be appointed by the governor and confirmed by the senate prior to assuming their recommended duties regarding licensure and enforcement. At this time, the Behavior Analyst Advisory Board has not been appointed. Because of the January 1, 2011, insurance mandate, the State Committee of Psychologists appointed a subcommittee charged with promulgating rules related to the licensure and regulation of behavior analysts and assistant behavior analysts. The subcommittee held their first meeting on July 14, 2010, and held four (4) subsequent meetings to draft regulations necessary to implement the licensure component of HB 1311. Several stakeholders, which included behavior analysts, parents of children with autism spectrum disorders, and lobbyists were in attendance at the meetings and provided input to the committee's work. The committee also solicited individuals who would have an interest in the subcommittee's work and placed those individuals on a mailing list to receive regular updates of the subcommittee's activities and work products. The mailing list included practitioners in the area of autism spectrum disorders, health care administrators, parents of children with autism spectrum disorders, and lobbyists. These individuals were encouraged to submit written comments for the subcommittee's consideration. The comments were discussed during the subcommittee meetings and often resulted in changes to the text of the rule. The State Committee of Psychologists reviewed and approved the proposed rules on October 27, 2010.

Section 337.310.4, RSMo, authorizes the committee to review and resolve all applications for licensure until such time as the Governor appoints the board and the board has a quorum. Terms defined in this rule are used in 20 CSR 2063-2.005. While section 337.310.3, RSMo, indicates the board is required to make recommendations to the committee related to rules and regulations, other sections throughout sections 337.300 through 337.345, RSMo, authorize the committee to promulgate rules to carry out that authority. Such sections include but are not limited to:

- Sections 337.315.2(2), 337.320.7, and 337.320.8(2), RSMo, authorizes to set fees;
- Section 337.315.4, RSMo, authorizes issuance of temporary permits;
- Section 337.315.8, RSMo, authorizes established code of conduct; and
- Section 337.315.9, RSMo, authorizes establishment of a supervision rule.

The legislation required coverage for services by autism service providers effective January 1, 2011. Autism service providers must be providers of diagnostic or treatment services for autism spectrum disorders and be licensed by the state of Missouri, or be licensed as a behavior analyst or assistant behavior analyst. If the committee is unable to begin licensing behavior analysts and assistant behavior analysts in mid-December, applicants will not be able to complete the application process, and the committee will have little to no time to review and resolve the applications prior to January 1, 2011. If the behavior analysts or assistant behavior analysts are not licensed by January 1, 2011, parents who wish to seek reimbursement of services may not be able to do so until the behavior analyst or assistant behavior analyst has been licensed by the state of Missouri. This could result in families being compelled to seek another provider of such services which could result in a negative impact to a child with autism spectrum disorder. Studies have proven that early and timely intervention is key to enhancing the lives of children with autism spectrum disorder.

Section 337.310, RSMo, authorizes the establishment of supervision of assistant behavior analysts. This emergency rule is necessary

to preserve a compelling governmental interest by establishing the characteristics of supervision for assistant behavior analysts.

Immediate adoption of this rule is essential because assistant behavior analysts must be supervised during their practice by a licensed behavior analyst and must submit proof of supervision to the board at the time of application for licensure. Accordingly, this rule must be in place at the time the board begins to license assistant behavior analysts.

As a result, the State Committee of Psychologists finds that there is a compelling governmental interest that requires this emergency action. A proposed rule, which covers the same material, is published in this issue of the **Missouri Register**. The scope of this emergency rule is limited to the circumstances creating the emergency and complies with the protections extended in the **Missouri and United States Constitutions**. The State Committee of Psychologists believes this emergency rule is fair to all interested persons and parties under the circumstances. This emergency rule was filed November 30, 2010, becomes effective December 10, 2010, and expires June 7, 2011.

(1) An assistant behavior analyst shall assist a behavior analyst in the delivery of applied behavior analysis in compliance with all state and federal statutes, regulations, and rules.

(2) The assistant behavior analyst may only perform services under the direct supervision of a behavior analyst as set forth in this rule.

(A) The manner of supervision shall depend on the treatment setting, patient/client caseload, and the competency of the assistant behavior analyst as determined by the supervising behavior analyst. At a minimum, supervision shall include consultation of the assistant behavior analyst with the supervising behavior analyst prior to the initiation of any patient's/client's treatment plan and modification of treatment plan.

(B) More frequent face-to-face supervision may be necessary as determined by the behavior analyst or assistant behavior analyst dependent on the level of expertise displayed by the assistant behavior analyst, the practice setting, and/or the complexity of the patient/client caseload.

(C) Supervision shall be an interactive process between the behavior analyst and assistant behavior analyst. It shall be more than peer review or co-signature. The interactive process shall include but is not limited to the patient/client assessment, reassessment, treatment plan, intervention, discontinuation of intervention, and/or treatment plan.

(D) The supervising behavior analyst or the supervisor's designee must be available for immediate consultation with the assistant behavior analyst. The supervisor need not be physically present or on the premises at all times.

(3) The supervising behavior analyst has the overall responsibility for providing the necessary supervision to protect the health and welfare of the patient/client receiving treatment from an assistant behavior analyst. The supervising behavior analyst shall—

(A) Be licensed by the board as a behavior analyst who is certified by the certifying entity;

(B) As of January 1, 2012, have a minimum of one (1)-year experience as a licensed behavior analyst. Prior to January 1, 2012, the supervising behavior analyst shall have a minimum of one (1) year of certification as a certified behavior analyst and shall obtain licensure prior to January 1, 2012;

(C) Not be under restriction or discipline from any licensing board or jurisdiction;

(D) Not have more than ten (10) full-time-equivalent (FTE) assistant behavior analysts under his/her supervision at one (1) time without prior approval by the board;

(E) Provide at least two (2) hours of face-to-face, direct supervision for every eighty (80) hours worked. Supervision in a group may be for not more than one (1) hour for each one hundred sixty (160) hours worked;

(F) Be responsible for all referrals of the patient/client;

(G) Be responsible for completing the patient's evaluation/assessment. The assistant behavior analyst may contribute to the screening and/or evaluation process by gathering data, administering standardized tests, and reporting observations. The assistant behavior analyst may not evaluate independently or initiate treatment before the supervising behavior analyst's evaluation/assessment;

(H) Be responsible for developing and modifying the patient's treatment plan. The treatment plan must include goals, interventions, frequency, and duration of treatment. The assistant behavior analyst may contribute to the preparation, implementation, and documentation of the treatment plan. The supervising behavior analyst shall be responsible for the outcome of the treatment plan and assigning of appropriate intervention plans to the assistant behavior analyst within the competency level of the assistant behavior analyst;

(I) Be responsible for developing the patient's discharge plan. The assistant behavior analyst may contribute to the preparation, implementation, and documentation of the discharge plan. The supervising behavior analyst shall be responsible for the outcome of the discharge plan and assigning of appropriate tasks to the assistant behavior analyst within the competency level of the assistant behavior analyst;

(J) Ensure that all patient/client documentation becomes a part of the permanent record; and

(K) Conduct at least one (1) on-site observation per client per month.

(4) The supervising behavior analyst has the overall responsibility for providing the necessary supervision to protect the health and welfare of the patient/client receiving treatment from an assistant behavior analyst. However, this does not absolve the assistant behavior analyst from his/her professional responsibilities. The assistant behavior analyst shall exercise sound judgment and provide adequate care in the performance of duties. The assistant behavior analyst shall—

(A) Not initiate any patient/client treatment program or modification of said program until the behavior analyst has evaluated, established a treatment plan, and consulted with the behavior analyst;

(B) Not perform an evaluation/assessment, but may contribute to the screening and/or evaluation process by gathering data, administering standardized tests, and reporting observations;

(C) Not analyze or interpret evaluation data;

(D) Track the need for reassessment and report changes in status that might warrant reassessment or referral;

(E) Immediately suspend any treatment intervention that appears harmful to the patient/client and immediately notify the behavior analyst; and

(F) Ensure that all patient/client documentation prepared by the assistant behavior analyst becomes a part of the permanent record.

(5) The supervisor shall ensure that the assistant behavior analyst provides applied behavior analysis as defined in section 337.300, RSMo, appropriate to and consistent with his/her education, training, and experience.

AUTHORITY: section 337.310.1, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. A proposed rule, which covers the same material, is published in this issue of the Missouri Register.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION**

**Division 2150—State Board of Registration for the
Healing Arts**

Chapter 2—Licensing of Physicians and Surgeons

EMERGENCY AMENDMENT

20 CSR 2150-2.080 Fees. The board is proposing to amend (1)(J).

PURPOSE: The State Board of Registration for the Healing Arts is statutorily obligated to enforce and administer the provisions of sections 334.002–334.749, RSMo. Pursuant to section 334.090, RSMo, the board shall by rule and regulation set the amount of fees authorized by sections 334.002–334.749, RSMo, so that the revenue produced is sufficient, but not excessive, to cover the cost and expense to the board for administering the provisions of sections 334.002–334.749, RSMo. Based on the board's five (5)-year projections, the board finds it necessary to reduce fees.

EMERGENCY STATEMENT: The State Board of Registration for the Healing Arts is statutorily obligated to enforce and administer the provisions of sections 334.002–334.749, RSMo. Pursuant to section 334.090, RSMo, the board shall by rule and regulation set the amount of fees authorized by sections 334.002–334.749, RSMo, so that the revenue produced is sufficient, but not excessive, to cover the cost and expense to the board for administering the provisions of sections 334.002–334.749, RSMo. The board is proposing to decrease the Renewal of Certificate of Registration Fee from one hundred thirty-five dollars (\$135) to fifty-five dollars (\$55) beginning November 29, 2010, and continuing through February 15, 2011.

Without this emergency amendment, the decreased fee requirement will not be effective in time for the renewal notice, and the board will collect more revenue than it is statutorily authorized to collect.

The scope of the emergency amendment is limited to the circumstances creating the emergency and complies with the protections extended in the Missouri and United States Constitutions. In developing this emergency amendment, the board has determined that the fee decrease is necessary beginning November 29, 2010, and continuing through February 15, 2011, to prevent funds from exceeding the maximum fund balance thereby resulting in a transfer from the fund to general revenue as set forth in section 334.090.2, RSMo. Pursuant to section 324.001.10, RSMo, a compelling governmental interest is deemed to exist for the purposes of section 536.025, RSMo, for licensure fees to be reduced by emergency rule, if the projected fund balance of any agency assigned to the Division of Professional Registration is reasonably expected to exceed an amount that would require transfer from that fund to general revenue. The board believes this emergency amendment to be fair to all interested parties under the circumstances. This emergency amendment was filed November 19, 2010, becomes effective November 29, 2010, and expires May 27, 2011.

(1) The following fees are established by the State Board of Registration for the Healing Arts:

- | | |
|--|----------------|
| (J) Renewal of Certificate of Registration Fee | <i>[\$135]</i> |
| 1. Effective November 29, 2010, to February 15, 2011 | \$ 55 |
| 2. Effective February 16, 2011 | \$135 |

AUTHORITY: sections 334.090.2 and 334.125, RSMo 2000. This rule originally filed as 4 CSR 150-2.080. Emergency rule filed July 1, 1981, effective July 11, 1981, expired Nov. 8, 1981. Original rule filed July 14, 1981, effective Oct. 11, 1981. For intervening history, please consult the Code of State Regulations. Emergency amendment filed Nov. 19, 2010, effective Nov. 29, 2010, expires May 27, 2011. A proposed amendment covering this same material is published in this issue of the Missouri Register.

Under this heading will appear the text of proposed rules and changes. The notice of proposed rulemaking is required to contain an explanation of any new rule or any change in an existing rule and the reasons therefor. This is set out in the Purpose section with each rule. Also required is a citation to the legal authority to make rules. This appears following the text of the rule, after the word "Authority."

Entirely new rules are printed without any special symbolology under the heading of the proposed rule. If an existing rule is to be amended or rescinded, it will have a heading of proposed amendment or proposed rescission. Rules which are proposed to be amended will have new matter printed in boldface type and matter to be deleted placed in brackets.

An important function of the *Missouri Register* is to solicit and encourage public participation in the rulemaking process. The law provides that for every proposed rule, amendment, or rescission there must be a notice that anyone may comment on the proposed action. This comment may take different forms.

If an agency is required by statute to hold a public hearing before making any new rules, then a Notice of Public Hearing will appear following the text of the rule. Hearing dates must be at least thirty (30) days after publication of the notice in the *Missouri Register*. If no hearing is planned or required, the agency must give a Notice to Submit Comments. This allows anyone to file statements in support of or in opposition to the proposed action with the agency within a specified time, no less than thirty (30) days after publication of the notice in the *Missouri Register*.

An agency may hold a public hearing on a rule even though not required by law to hold one. If an agency allows comments to be received following the hearing date, the close of comments date will be used as the beginning day in the ninety (90)-day-count necessary for the filing of the order of rulemaking.

If an agency decides to hold a public hearing after planning not to, it must withdraw the earlier notice and file a new notice of proposed rulemaking and schedule a hearing for a date not less than thirty (30) days from the date of publication of the new notice.

Proposed Amendment Text Reminder:

Boldface text indicates new matter.

[Bracketed text indicates matter being deleted.]

Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 5—Air Quality Standards and Air Pollution
Control Rules Specific to the St. Louis Metropolitan
Area

PROPOSED AMENDMENT

10 CSR 10-5.330 Control of Emissions From Industrial Surface Coating Operations. The commission proposes to amend the rule purpose; amend section (1); delete current sections (3), (4), and (5); add new sections (3), (4), and (5); and delete sections (6) and (7). If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule that is in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the

address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/reg/index.html.

PURPOSE: This rule restricts the emissions of volatile organic compounds from industrial surface coating operations. This amendment will exempt facilities that are regulated under other rules that limit emissions of volatile organic compounds and will incorporate changes in Reasonably Available Control Technology (RACT) for surface coating operations to be consistent with the current federal RACT guidance documents. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is the U.S. Environmental Protection Agency 2006–2008 Control Techniques Guidelines for surface coating operations, a petition from The Boeing Company to amend the rule, and Clean Air Act section 182(b)(2).

PURPOSE: This rule restricts the emissions of volatile organic compounds from industrial surface coating operations.

(1) Applicability.

(A) This rule shall apply throughout St. Louis City and Jefferson, St. Charles, Franklin, and St. Louis Counties.

(B) This rule shall apply to any installation with actual emissions of greater than *[two and one-half (2 1/2)] three (3)* tons in any calendar year *[after December 1, 1989,]* of volatile organic compounds (VOCs) from surface coating operations, **including related cleaning activities**, covered under this rule. *[This includes any installation which does not have an allowable VOC emission limit established under 10 CSR 10-6.060 or legally enforceable state implementation plan revision, which has actual VOC emissions of greater than two and one-half (2 1/2) tons in any calendar year after December 1, 1989. Once a source is determined to exceed the applicability level of this rule, it shall remain subject to this rule even if its actual emissions drop below the applicability level.]* **The installation shall not consider the effects of controls when calculating the applicable level of three (3) tons of actual VOC emissions.**

(C) This rule is *[not applicable to the surface coating of the following metal parts and products:]* **only applicable to the surface coating of manufactured items intended for distribution in commerce to persons other than the person or legal entity performing the surface coating.**

[1. Automobile refinishing;

2. Customizing top coating of automobiles and trucks, if production is less than thirty-five (35) vehicles per day; and

3. Exterior of marine vessels.]

(D) Exemptions. This rule is not applicable to the following:

1. Motor vehicle refinishing;

2. Customizing top coating of motor vehicles, if production is less than thirty-five (35) vehicles per day;

3. Surface coating of the exterior of marine vessels except for pleasure craft;

4. Surface coating that is part of janitorial, building, and installation maintenance operations;

5. Research and development, performance testing, and quality control of coatings and surface coated products;

6. Aerosol coatings;

7. Field application of architectural coatings to buildings, building components, and stationary structures;

8. Powder coatings;

9. Surface coating and cleaning of aerospace vehicles or components at an aerospace manufacture or rework installation that—

A. Is subject to the requirements and/or aerospace-specific exemptions of 10 CSR 10-5.295; or

B. Is not subject to 10 CSR 10-5.295 because the installation's potential to emit volatile organic compounds from aerospace surface coating and cleaning is twenty-five (25) tons per year or less;

10. Surface coating and cleaning of wood furniture or wood furniture components at a wood furniture manufacturing installation that—

A. Is subject to the requirements and/or wood furniture-specific exemptions of 10 CSR 10-5.530; or

B. Is not subject to 10 CSR 10-5.530 because the installation's potential to emit volatile organic compounds from wood furniture coating and cleaning is less than twenty-five (25) tons per year;

11. Surface coating and cleaning operations that are subject to a Reasonably Available Control Technology determination under 10 CSR 10-5.520;

12. Application and storage of traffic coatings that are subject to the requirements of 10 CSR 10-5.450;

13. Printing operations that are subject to the requirements of 10 CSR 10-5.340 or 10 CSR 10-5.442;

14. Surface coating and cleaning of articles used for internal company operations, including, but not limited to, work stands; scaffolding; jigs; tooling; dollies; tow bars; aircraft ground support equipment; portable equipment used for maintenance, testing, fabrication, or repair; toolboxes; storage bins; shelving; and other manufacturing or warehouse support items;

15. Surface coating operations which do not have a VOC limit in section (3) of this rule;

16. Adhesives and sealants that contain less than 0.17 pounds of VOC per gallon of coating (less water and exempt compounds) as applied;

17. Cyanoacrylate adhesives;

18. Adhesives, sealants, adhesive primers, and sealant primers that are supplied by the manufacturer or supplier in containers with a net volume of sixteen (16) fluid ounces or less, or a net weight of one (1) pound or less, except plastic cement welding adhesives and contact adhesives;

19. Contact adhesives that are supplied by the manufacturer or supplier in containers with a net volume of one (1) gallon or less; and

20. Adhesives, sealants, adhesive primers, sealant primers, surface preparation, and cleanup solvents that are used in the following operations:

A. Tire repair operations, provided the adhesive is labeled for tire repair only;

B. Assembly, repair, and manufacture of aerospace or undersea-based weapon systems;

C. Solvent welding operations used in the manufacture of medical devices or in the manufacture of medical equipment; and

D. Plaque laminating operations in which adhesives are used to bond clear, polyester acetate laminate to wood with lamination equipment installed prior to July 1, 1992.

(E) Once an installation exceeds the applicability level of this rule, it shall remain subject to this rule until it can demonstrate, to the satisfaction of the director, that the actual total VOC emissions from surface coating operations, including related cleaning activities, is below three (3) tons per year for five (5) consecutive calendar years.

[(3) General Provisions. No person shall emit to the atmosphere any VOC from any surface coating operation in excess of the amount allowed in section (4). A surface coating operation includes an application area(s), flashoff area(s), oven(s) and any other functional area needed to complete a coating.

(4) Tables of Emission Limitations and Dates of Compliance.

(A) Table A: VOC Emission Limits Based on Solids Applied.

Operations	Emission Limit lbs. VOC/gal. Solids Applied	Dates of Compliance
Surface Coating		
Auto/light duty truck		
Topcoat	15.1	12/1/89
Spray Prime or Primer Surfacer	15.1	12/1/89

(B) Table B: VOC Emission Limits Based on Weight of VOC per Gallon of Coating (minus water and non-VOC organic compounds).

Surface Coatings Operations	Emission Limit lbs. VOC/gal. Coating (less water & non-VOC organic compounds)	Dates of Compliance (See Note)
Large Appliance		
Topcoat	2.8	12/31/81
Final Repair	6.5	12/31/81
Magnet Wire	1.7	12/31/81
Metal Furniture	3.0	12/31/81
Auto/Light Duty Truck		
Chrysler Motor Co. (Car)		
Prime-Electrocoat	1.2	12/31/85
Spray Prime	4.2	12/31/79
	3.4	12/31/83
	2.8	12/31/85
Topcoat	3.9	12/31/79
	3.0	12/31/84
	2.5	12/31/85
	4.8	12/31/81
Final Repair		
Miscellaneous Metal Parts		
Extreme Performance and Air Dried		
Coatings	3.5	12/31/82
All Other Coatings	3.0	12/31/82
Chrysler Motor Co. (Truck)		
Prime-Electrocoat	1.2	12/31/84
Spray Prime	4.4	12/31/79
	3.4	12/31/82
	2.8	12/31/84
Topcoat	3.9	12/31/79
	2.5	12/31/84
	4.8	12/31/84
Final Repair		
Miscellaneous Metal Parts		
Extreme Performance and Air Dried		
Coatings	3.5	12/31/82
All Other Coatings	3.0	12/31/82
Ford Motor Company		
Prime-Electrocoat	1.2	12/31/82
Spray Prime	3.2	12/31/83
Topcoat	3.6	12/31/84
Final Repair	4.8	12/31/84
Miscellaneous Metal Parts		
Extreme Performance and Air Dried		
Coatings	3.5	12/31/82
All Other Coatings	3.0	12/31/82
General Motors Company		
Cathodic Electrocoat	1.2	12/31/82
Primer Surfacer	3.0	12/31/82
	2.8	12/31/84

Topcoat	5.8	12/31/79
	5.0	12/31/81
	2.8	12/31/84
Final Repair	6.5	7/1/79
	4.8	12/31/84
Miscellaneous Metal Parts		
Extreme Performance		
and Air Dried		
Coatings	3.5	12/31/82
All Other Coatings	3.0	12/31/82
Paper	2.9	12/31/81
Vinyl	3.8	12/31/81
Fabric	2.9	12/31/81
Coil	2.6	12/31/81
Can		
2 Piece Exterior Sheet	4.0	12/31/82
Basecoat	2.8	12/31/85
2 and 3 Piece Interior		
Body Spray	4.2	12/31/82
2 Piece End Exterior	4.2	12/31/82
3 Piece Side Seam	5.5	12/31/82
End Seal Compound	4.2	12/31/82
	3.7	12/31/85
Railroad Cars, Farm		
Implements and Machinery,		
and Heavy Duty		
Trucks	3.5	12/31/82
Other Metal Parts		
Clear Coat	4.3	12/31/82
Extreme Performance and		
Air Dried Coatings	3.5	12/31/82
All Other Coatings	3.0	12/31/82
Plastic Parts	3.5	4/11/84
Mail Boxes		
and Shutters	3.5	4/11/85

Note: The emission limit associated with the latest compliance date for each surface coating process supersedes interim emission limits associated with earlier compliance dates. No coating operation shall have emission limits from Tables A and B that apply at the same time.

(5) Determination of Compliance. Compliance with section (4) of this rule shall be determined by one (1) of the following methods specified in subsections (5)(A) and (B) as applicable and appropriate:

(A) For subsection (4)(A), Table A, the calculation of daily volume-weighted emission performance for automobile and light duty truck primer surfacer and topcoat operations shall be made according to procedures detailed in the United States Environmental Protection Agency (EPA) document entitled "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light Duty Truck Topcoat Operations" (U.S. EPA-450/3-88-018) dated December, 1988; and

(B) For subsection (4)(B), Table B—

1. Compliance with the emission limits may be determined using the method referenced in 10 CSR 10-6.030(14)(C) using the one (1)-hour bake. Emission performance shall be on the basis of a daily volume-weighted average of all coatings used in each surface coating operation as delivered to the coating applicator(s) on a coating line. The daily volume-weighted average (DAVG_{vw}) shall be calculated by the following formula:

$$DAVG_{vw} = \frac{\sum_{i=1}^n (A_i \times B_i)}{C}$$

Where:

A = daily gal. each coating used (minus water and exempt solvents) in a surface coating operation;

B = lbs. VOC/gal. coating (minus water and exempt solvents);

C = total daily gal. coatings used (minus water and exempt solvents) in a surface coating operation; and

N = number of coatings used in a surface coating operation;

2. Compliance with the emission limits in subsection (4)(B), Table B may be determined on a pounds of VOC per gallon of coating solids basis. The determination is made by first converting the emission limit in subsection (4)(B), Table B to pounds of VOC per gallon of coating solids as shown in the following three (3) steps:

$$1) \frac{\text{lbs. VOC per gallon of coating (emission limit)} - \text{minus water from (4)(B)}}{7.36 \text{ lbs. per gallon (average density of solvents used to originally establish the emission limit)}} = \text{Volume fraction of VOC}$$

$$2) 1 - \text{Volume fraction of VOC} = \text{Volume fraction of solids}$$

$$3) \frac{\text{lbs. VOC per gallon of coating (emission limit)} - \text{minus water from (4)(B)}}{\text{Volume fraction of solids}} = \text{lbs. VOC gallons of coating solids}$$

This value from step 3) is the new emission limit. It is equivalent to the emission limit in subsection (4)(B) on a coating solids basis. The VOC per gallon of coating solids for each coating solids used is then determined using the method referenced in 10 CSR 10-6.030(14)(C) using the one (1)-hour bake. The composite daily weighted average of pounds of VOC per gallon of coating solids as tested for in the actual coatings used is compared to the new emission limit. Source operations on a coating line using coatings with a composite actual daily weighted average value less than or equal to the new emission limit, are in compliance with this rule; or

3. Compliance with the emission limits in subsection (4)(B), Table B may be determined on a pounds of VOC per gallon of coating solids applied basis. An owner or operator may request his/her emission limit be modified to be equivalent to the emission limit in subsection (4)(B), but in emission units of pounds of VOC emitted per gallon of coating solids applied. This new emission limit is derived by dividing the emission limit from paragraph (5)(B)2. by an appropriate value for transfer efficiency (TE) as determined by the director. Prior to this determination, the owner or operator shall demonstrate to the satisfaction of the director that an adequate, fully replicable TE test method exists for the source operation. Upon approval of the TE demonstration, the director will develop an emission limit equivalent to the applicable emission limit in subsection (4)(B).

(6) Record Keeping.

(A) The owner or operator of a coating line shall keep records detailing specific VOC sources as necessary for the director to determine daily compliance. These may include:

1. Daily records of the type and the quantity of coatings used daily;

2. The coating manufacturer's formulation data for each coating on forms provided or approved by the director;

3. Daily records of the type and quantity of solvents for coating, thinning, purging and equipment cleaning used;

4. All test results to determine capture and control efficiencies, TEs and coating makeup;

5. Daily records of the type and quantity of waste solvents reclaimed or discarded daily;

6. Daily records of the quantity of pieces or materials coated daily; and

7. Any additional information pertinent to determining compliance.

(B) Records such as daily production rates may be substituted for actual daily coating use measurements provided the owner submits a demonstration approved by the director that these records are adequate for the purposes of this rule.

(C) Records required under subsections (6)(A) and (B) shall be retained by the owner or operator for a minimum of two (2) years. These records shall be made available to the director upon request.

(7) Compliance Schedules.

(A) Owners or operators who were subject to this rule prior to December 1, 1989 shall be subject to the compliance dates set forth in section (4). Record keeping systems required of these owners or operators under section (6) shall be in place and functioning not later than April 1, 1990. All other subject owners or operators shall be in compliance and have all record keeping systems in place by December 1, 1990.

(B) Owners or operators subject to this rule, but operating under alternate compliance plans as allowed prior to December 1, 1989, shall submit documentation by March 1, 1990 that their controls represent compliance with this rule. If the director determines that the documentation represents compliance, the director shall propose to the Missouri Air Conservation Commission subsequent rules' amendments to make those control measures enforceable. If documentation is not submitted or if the director determines the documentation does not represent compliance, the owner or operator shall comply with section (4) of this rule. All owners or operators subject to this subsection shall demonstrate compliance by December 1, 1990.]

(3) General Provisions. General provisions for specific coatings may be found in the following subsections of section (3) of this rule:

Coating	Subsection
Large Appliance Coatings	(3)(A)
Metal Furniture Coatings	(3)(B)
Automobile and Light Duty Truck Assembly Coatings	(3)(C)
Paper, Film, and Foil Coatings	(3)(D)
Magnet Wire Coatings	(3)(E)
Coil Coatings	(3)(F)
Can Coatings	(3)(G)
Vinyl and Fabric Coatings	(3)(H)
Flat Wood Paneling Coatings	(3)(I)
Miscellaneous Metal and Plastic Parts Coatings	(3)(J)
Industrial Adhesive Application	(3)(K)

(A) Large Appliance Coatings.

1. The requirements in this subsection apply to the surface coating of doors, cases, lids, panels, and interior support parts of the following residential and commercial products:

- A. Washers;
- B. Dryers;
- C. Ranges;
- D. Refrigerators;
- E. Freezers;
- F. Water heaters;
- G. Dishwashers;
- H. Trash compactors;

- I. Air conditioners; and
- J. Other similar products.

2. Emission limits.

A. Prior to September 1, 2011, no owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of the following, as delivered to the coating applicator(s):

Large Appliance Coatings	
Coating Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)
Topcoat	2.8
Final Repair	6.5

B. On or after September 1, 2011, no owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of the following, as delivered to the coating applicator(s):

Large Appliance Coatings		
Coating Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)	
	Baked	Air Dried
General, One Component	2.3	2.3
General, Multi Component	2.3	2.8
Extreme High Gloss	3.0	2.8
Extreme Performance	3.0	3.5
Heat Resistant	3.0	3.5
Metallic	3.5	3.5
Pretreatment Coatings	3.5	3.5
Solar Absorbent	3.0	3.5
Repair and Touch Up	6.5	6.5

3. Method and determination of compliance. The emission limits in paragraph (3)(A)2. of this rule shall be achieved through one (1) of the following:

A. VOC content of coatings. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds) per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limits in paragraph (3)(A)2. of this rule;

B. Combination of VOC content of coatings and add-on controls. Calculate the required control system efficiency per paragraph (5)(C)4. of this rule. The surface coating unit is in compliance if the actual overall control system efficiency is greater than or equal to the required control system efficiency; or

C. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be ninety percent (90%) or greater.

4. Application equipment. On or after September 1, 2011, one (1) or a combination of the following equipment shall be used for coating application, unless achieving compliance by using an add-on control system per subparagraph (3)(A)3.C. of this rule:

- A. Electrostatic equipment;
- B. High-volume low-pressure (HVLP) spray equipment;
- C. Flow coating;
- D. Roller coating;
- E. Dip coating, including electrodeposition;
- F. Airless spray;

G. Air-assisted airless spray; and

H. Other coating application method capable of achieving a transfer efficiency equivalent or better than achieved by HVLP spraying.

5. Work practices. On or after September 1, 2011, work practices shall be used to minimize VOC emissions from solvent storage, mixing operations, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

A. Store all VOC-containing coatings, thinners, and cleaning materials in closed containers;

B. Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials;

C. Minimize spills of VOC-containing coatings, thinners, and cleaning materials;

D. Clean up spills immediately;

E. Convey any coatings, thinners, and cleaning materials in closed containers or pipes from one (1) location to another; and

F. Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

6. The VOC limits in paragraph (3)(A)2. of this rule do not apply to the following types of coatings and coating operations:

A. Stencil coatings;

B. Safety-indicating coatings;

C. Solid film lubricants; or

D. Electric-insulating and thermal-conducting coatings.

(B) Metal Furniture Coatings.

1. The requirements in this subsection apply to surface coating of any furniture made of metal or any metal part that will be assembled with other metal, wood, fabric, plastic, or glass parts to form a furniture piece.

2. Emission limits.

A. Prior to September 1, 2011, no owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of three (3.0) pounds of VOC per gallon of coating (minus water and exempt compounds) as delivered to the coating applicator(s).

B. On or after September 1, 2011, no owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of the following, as delivered to the coating applicator(s):

Metal Furniture Coatings		
Coating Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)	
	Baked	Air Dried
General, One Component	2.3	2.3
General, Multi Component	2.3	2.8
Extreme High Gloss	3.0	2.8
Extreme Performance	3.0	3.5
Heat Resistant	3.0	3.5
Metallic	3.5	3.5
Pretreatment Coatings	3.5	3.5
Solar Absorbent	3.0	3.5

3. Method and determination of compliance. The emission limits in paragraph (3)(B)2. of this rule shall be achieved through

one (1) of the following:

A. VOC content of coatings. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds) per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limits in paragraph (3)(B)2. of this rule;

B. Combination of VOC content of coatings and add-on controls. Calculate the required control system efficiency per paragraph (5)(C)4. of this rule. The surface coating unit is in compliance if the actual overall control system efficiency is greater than or equal to the required control system efficiency; or

C. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be ninety percent (90%) or greater.

4. Application equipment. On or after September 1, 2011, one (1) or a combination of the following equipment shall be used for coating application, unless achieving compliance by using an add-on control system per subparagraph (3)(B)3.C. of this rule:

A. Electrostatic equipment;

B. HVLP spray equipment;

C. Flow coating;

D. Roller coating;

E. Dip coating, including electrodeposition;

F. Airless spray;

G. Air-assisted airless spray; and

H. Other coating application method capable of achieving a transfer efficiency equivalent or better than achieved by HVLP spraying.

5. Work practices. On or after September 1, 2011, work practices shall be used to minimize VOC emissions from solvent storage, mixing operations, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

A. Store all VOC-containing coatings, thinners, and cleaning materials in closed containers;

B. Ensure that mixing and storage containers used for VOC-containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials;

C. Minimize spills of VOC-containing coatings, thinners, and cleaning materials;

D. Clean up spills immediately;

E. Convey any coatings, thinners, and cleaning materials in closed containers or pipes from one (1) location to another; and

F. Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

6. The VOC limits in paragraph (3)(B)2. of this rule do not apply to the following types of coatings and coating operations:

A. Stencil coatings;

B. Safety-indicating coatings;

C. Solid film lubricants; and

D. Electric-insulating and thermal-conducting coatings.

(C) Automobile and Light Duty Truck Assembly Coatings.

1. The requirements in this subsection apply to automobile and light duty truck surface coating operations performed in an automobile or light duty truck assembly installation.

2. Emission limits.

A. Prior to September 1, 2011, no owner or operator of an automobile or light duty truck assembly installation may cause, allow, or permit the discharge into the ambient air of any VOC in excess of the following:

Automobile and Light Duty Truck Assembly Coatings	
Coating Category	Emission Limit
Topcoat	15.1 pounds of VOC per gallon of coating solids deposited
Spray Primer or Primer Surfacer	15.1 pounds of VOC per gallon of coating solids deposited
Electrodeposition Primer	1.4 pounds of VOC per gallon of coating solids deposited
Final Repair	4.8 pounds of VOC per gallon of coating (minus water and exempt compounds)
Miscellaneous Metal Parts, Extreme Performance, and Air Dried Coatings	3.5 pounds of VOC per gallon of coating (minus water and exempt compounds)
All Other Coatings	3.0 pounds of VOC per gallon of coating (minus water and exempt compounds)

B. On or after September 1, 2011, no owner or operator of an automobile or light duty truck assembly installation may cause, allow, or permit the discharge into the ambient air of any VOC in excess of the following:

Automobile and Light Duty Truck Assembly Coatings			
Coating Category	Emission Limit		
	$R_T < 0.040$	$0.040 \leq R_T < 0.160$	$R_T \geq 0.160$
Electrodeposition primer (EDP)	No VOC Emission Limit	$0.7 \times 350^{0.160-R_T}$ pounds of VOC per gallon of coating solids deposited	0.7 pounds of VOC per gallon of coating solids deposited
Primer-surfacer	12.0 pounds of VOC per gallon of coating solids deposited		
Topcoat	12.0 pounds of VOC per gallon of coating solids deposited		
Combined Primer-Surfacer and Topcoat	12.0 pounds of VOC per gallon of coating solids deposited		
Final repair	4.8 pounds of VOC per gallon of coating (minus water and exempt compounds)		

Miscellaneous Materials	
Material	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)
Automobile and light duty truck glass bonding primer	7.5
Automobile and light duty truck adhesive	2.1
Automobile and light duty truck cavity wax	5.4
Automobile and light duty truck sealer	5.4
Automobile and light duty truck deadener	5.4
Automobile and light duty truck gasket/gasket-sealing material	1.7
Automobile and light duty truck underbody coating	5.4
Automobile and light duty truck trunk interior coating	5.4
Automobile and light duty truck bedliner	1.7
Automobile and light duty truck weatherstrip adhesive	6.3
Automobile and light duty truck lubricating wax/compound	5.8

3. Method and determination of compliance. The emission limits in paragraph (3)(C)2. of this rule shall be achieved through the following:

A. Spray primer; primer-surfacer; topcoat; and combined primer-surfacer and topcoat. The VOC emission rate, expressed as pounds of VOC per gallon of coating solids deposited, is determined by the procedures in the U.S. Environmental Protection Agency (EPA) document *Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations* (EPA-453/R-08-002), dated September 2008. The surface coating unit is in compliance if the emission rate is less than or equal to the emission limit in paragraph (3)(C)2. of this rule;

B. Electrodeposition primer (EDP). Determine the monthly volume-weighted average VOC emission rate of the EDP coating unit, expressed as pounds of VOC per gallon of coating solids deposited, per subparagraph (5)(C)3.D. of this rule. The EDP coating unit is in compliance if this value is less than or equal to the emission limit in paragraph (3)(C)2. of this rule;

C. Final repair coatings. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds) per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limits in paragraph (3)(C)2. of this rule; and

D. All other coatings. Determine the monthly volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds) per subparagraph (5)(C)3.E. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limit in paragraph (3)(C)2. of this rule.

4. Work practices and work practice plan.

A. Work practices. On or after September 1, 2011, work practices shall be used to minimize VOC emissions from storage, mixing operations, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

(I) Store all VOC-containing coatings, thinners, and cleaning materials in closed containers;

(II) Ensure that mixing and storage containers used for VOC-containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials;

(III) Minimize spills of VOC-containing coatings, thinners, and cleaning materials;

(IV) Clean up spills immediately;

(V) Convey any coatings, thinners, and cleaning materials in closed containers or pipes from one (1) location to another; and

(VI) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

B. Work practice plan. Installations subject to subparagraph (3)(C)4.A. of this rule shall develop and implement a work practice plan to minimize VOC emissions from cleaning and purging of equipment associated with all coating operations for which emission limits are specified in paragraph (3)(C)2. of this rule. The plan shall specify practices and procedures to ensure that VOC emissions from the following operations are minimized:

(I) Vehicle body wiping;

(II) Coating line purging;

(III) Flushing of coating systems;

(IV) Cleaning of spray booth grates;

(V) Cleaning of spray booth walls;

(VI) Cleaning of spray booth equipment;

(VII) Cleaning external spray booth areas; and

(VIII) Other housekeeping measures, such as keeping solvent-laden rags in closed containers.

(D) Paper, Film, and Foil Coatings.

1. The requirements in this subsection apply to paper, film, and foil coating operations, with the exception of the following:

A. Paper, film, and foil surface coating units with potential to emit below twenty-five (25) tons per year of VOC from coating, prior to controls;

B. Coating performed on or in-line with any offset lithographic, screen, letterpress, flexographic, rotogravure, or digital printing press that is part of a printing process; and

C. Size presses and on-machine coaters on papermaking machines that apply sizing or water-based clays.

2. Emission limits.

A. Prior to September 1, 2011, no owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of two and nine-tenths (2.9) pounds of VOC per gallon of coating (minus water and exempt compounds) as delivered to the coating applicator(s).

B. On or after September 1, 2011, no owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of the following, as delivered to the coating applicator(s):

Paper, Film, and Foil Coatings	
Coating Category	Emission Limit pounds of VOC per pound of coating solids
Pressure sensitive tape and label	0.2
Paper, film, and foil surface coating (not including pressure sensitive tape and label)	0.4

3. Method and determination of compliance. The emission limits in paragraph (3)(D)2. of this rule shall be achieved through one (1) of the following:

A. VOC content of coatings.

(I) Prior to September 1, 2011. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds) per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limit in paragraph (3)(D)2. of this rule.

(II) On or after September 1, 2011. Determine the daily mass-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per pound of coating solids per subparagraph (5)(C)3.C. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limits in paragraph (3)(D)2. of this rule; or

B. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be ninety percent (90%) or greater.

4. Work practices. On or after September 1, 2011, work practices shall be used to minimize VOC emissions from solvent storage, mixing operations, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

A. Store all VOC-containing coatings, thinners, and cleaning materials in closed containers;

B. Ensure that mixing and storage containers used for VOC-containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials;

C. Minimize spills of VOC-containing coatings, thinners, and cleaning materials;

D. Clean up spills immediately;

E. Convey any coatings, thinners, and cleaning materials in closed containers or pipes from one (1) location to another; and

F. Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

(E) Magnet Wire Coatings.

1. The requirements in this subsection apply to the coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

2. Emission limits. No owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of one and seven-tenths (1.7) pounds of VOC per gallon of coating (minus water and exempt compounds) as delivered to the coating applicator(s).

3. Method and determination of compliance. The emission limits in paragraph (3)(E)2. of this rule shall be achieved through one (1) of the following:

A. VOC content of coatings. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limit in paragraph (3)(E)2. of this rule;

B. Combination of VOC content of coatings and add-on controls. Calculate the required control system efficiency per paragraph (5)(C)4. of this rule. The surface coating unit is in compliance if the actual overall control system efficiency is greater than or equal to the required control system efficiency; or

C. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be ninety percent (90%) or greater.

(F) Coil Coatings.

1. The requirements in this subsection apply to the surface coating of any flat metal sheet or strip that comes in rolls or coils.

2. Emission limits. No owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of two and six-tenths (2.6) pounds of VOC per gallon of coating (minus water and exempt compounds) as delivered to the coating applicator(s).

3. Method and determination of compliance. The emission limits in paragraph (3)(F)2. of this rule shall be achieved through one (1) of the following:

A. VOC content of coatings. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limit in paragraph (3)(F)2. of this rule;

B. Combination of VOC content of coatings and add-on controls. Calculate the required control system efficiency per paragraph (5)(C)4. of this rule. The surface coating unit is in compliance if the actual overall control system efficiency is greater than or equal to the required control system efficiency; or

C. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be ninety percent (90%) or greater.

(G) Can Coatings.

1. The requirements in this subsection apply to the surface coating of cans.

2. Emission limits. No owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the

discharge into the ambient air of any volatile organic compounds, as delivered to the coating applicator(s), in excess of the following:

Can Coatings	
Coating Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)
2-Piece Exterior Sheet Basecoat	2.8
2- and 3-Piece Interior Body Spray	4.2
2-Piece End Exterior	4.2
3-Piece Side Seam	5.5
End Seal Compound	3.7

3. Method and determination of compliance. The emission limits in paragraph (3)(G)2. of this rule shall be achieved through one (1) of the following:

A. VOC content of coatings. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limit in paragraph (3)(G)2. of this rule;

B. Combination of VOC content of coatings and add-on controls. Calculate the required control system efficiency per paragraph (5)(C)4. of this rule. The surface coating unit is in compliance if the actual overall control system efficiency is greater than or equal to the required control system efficiency; or

C. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be ninety percent (90%) or greater.

(H) Vinyl and Fabric Coatings.

1. The requirements in this subsection apply to vinyl coating and fabric coating.

2. Emission limits. No owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any volatile organic compounds, as delivered to the coating applicator(s), in excess of the following:

Vinyl and Fabric Coatings	
Coating Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)
Vinyl	3.8
Fabric	2.9

3. Method and determination of compliance. The emission limits in paragraph (3)(H)2. of this rule shall be achieved through one (1) of the following:

A. VOC content of coatings. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limit in paragraph (3)(H)2. of this rule;

B. Combination of VOC content of coatings and add-on controls. Calculate the required control system efficiency per paragraph (5)(C)4. of this rule. The surface coating unit is in compliance if the actual overall control system efficiency is greater than or equal to the required control system efficiency; or

C. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be ninety percent (90%) or greater.

(I) Flat Wood Paneling Coatings.

1. The requirements in this subsection apply to the coating of the following:

- A. Printed interior panels made of hardwood plywood and thin particle board;
- B. Natural finish hardwood plywood panels;
- C. Hardboard paneling with Class II finishes;
- D. Exterior siding; and
- E. Tileboard.

2. Emission limits. On or after September 1, 2011, no owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess two and one-tenths (2.1) pounds of VOC per gallon of coating (minus water and exempt compounds) as delivered to the coating applicator(s).

3. Method and determination of compliance. The emission limits in paragraph (3)(I)2. of this rule shall be achieved through one (1) of the following:

A. VOC content of coatings. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limit in paragraph (3)(I)2. of this rule;

B. Combination of VOC content of coatings and add-on controls. Calculate the required control system efficiency per paragraph (5)(C)4. of this rule. The surface coating unit is in compliance if the actual overall control system efficiency is greater than or equal to the required control system efficiency; or

C. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be ninety percent (90%) or greater.

4. Work practices. On or after September 1, 2011, work practices shall be used to minimize VOC emissions from solvent storage, mixing operations, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

A. Store all VOC-containing coatings, thinners, and cleaning materials in closed containers;

B. Ensure that mixing and storage containers used for VOC-containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials;

C. Minimize spills of VOC-containing coatings, thinners, and cleaning materials;

D. Clean up spills immediately;

E. Convey any coatings, thinners, and cleaning materials in closed containers or pipes from one (1) location to another; and

F. Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

(J) Miscellaneous Metal and Plastic Parts Coatings.

1. The requirements in this subsection apply to the surface coating of all other miscellaneous metal and plastic parts including, but not limited to, the following:

A. Large and small farm implements and machinery;

B. Railroad cars;

C. Small household appliances;

D. Office equipment;

E. Commercial and industrial machinery and equipment;

F. Any other industrial category that coats metal parts or products under the Standard Industrial Classification Code of major groups #33, #34, #35, #36, #37, #38, and #39;

G. Fabricated metal products;

H. Molded plastic parts;

I. Automotive or transportation equipment;
 J. Interior or exterior automotive parts;
 K. Construction equipment;
 L. Motor vehicle accessories;
 M. Bicycles and sporting goods;
 N. Toys;
 O. Recreational vehicles;
 P. Pleasure craft (recreational boats);
 Q. Extruded aluminum structural components;
 R. Heavier vehicles;
 S. Lawn and garden equipment;
 T. Business machines;
 U. Laboratory and medical equipment;
 V. Electronic equipment;
 W. Steel drums;
 X. Metal pipes; and
 Y. Prefabricated architectural components when the coating is applied in a surface coating unit as defined in subsection (2)(S).

2. Emission limits.

A. Prior to September 1, 2011, no owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of the following, as delivered to the coating applicator(s):

Coating Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)
Metal Parts	
Clear Coat	4.3
Extreme Performance Coatings	3.5
Air Dried Coatings	3.5
All Other Coatings	3.0
Plastic Parts	3.5
Railroad Cars	3.5
Farm Implements and Machinery	3.5
Heavy Duty Trucks	3.5
Mail Boxes and Shutters	3.5

B. On or after September 1, 2011, no owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of the following, as delivered to the coating applicator(s):

Metal Parts and Products Coatings		
Coating Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)	
	Air Dried	Baked
General, One Component	2.8	2.3
General, Multi Component	2.8	2.3
Camouflage	3.5	3.5
Clear Coat	4.3	4.3
Electric-Insulating Varnish	3.5	3.5
Etching Filler	3.5	3.5
Extreme High Gloss	3.5	3.0
Extreme Performance	3.5	3.0
Heat Resistant	3.5	3.0
High Performance Architectural	6.2	6.2
High Temperature	3.5	3.5
Metallic	3.5	3.5
Military Specification	2.8	2.3
Mold Seal	3.5	3.5
Pan Backing	3.5	3.5
Prefabricated Architectural	3.5	2.3
Pretreatment Coatings	3.5	3.5
Repair and Touch Up	3.5	3.0
Silicone Release	3.5	3.5
Solar Absorbent	3.5	3.0
Vacuum Metalizing	3.5	3.5
Drum, New, Exterior	2.8	2.8
Drum, New, Interior	3.5	3.5
Drum, Reconditioned, Exterior	3.5	3.5
Drum, Reconditioned, Interior	4.2	4.2

Plastic Parts and Products Coatings	
Coating Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)
Automotive/Transportation	
High Bake, Interior and Exterior Parts	
Flexible Primer	4.5
Non-Flexible Primer	3.5
Basecoat	4.3
Clear Coat	4.0
Non- Basecoat/Clear Coat	4.3
Low Bake/Air Dried, Exterior Parts	
Primer	4.8
Basecoat	5.0
Clear Coat	4.5
Non- Basecoat/Clear Coat	5.0
Low Bake/Air Dried, Interior Parts	5.0
Touch Up and Repair	5.2
Business Machine	
Primer	2.9
Topcoat	2.9
Texture Coat	2.9
Fog Coat	2.2
Touch Up and Repair	2.9
Plastic, All Other	
General, One Component	2.3
General, Multi Component	3.5
Electric Dissipating and Shock-Free	6.7
Extreme Performance	3.5
Metallic	3.5
Military Specification	
One (1) Pack	2.8
Two (2) Pack	3.5
Mold Seal	6.3
Multi Colored	5.7
Optical	6.7
Polyurethane Shoe Sole	6.7
Vacuum-Metalizing	6.7

Pleasure Craft Coatings	
Coating Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)
Extreme High Gloss Topcoat	5.0
High Gloss Topcoat	3.5
Pretreatment Wash Primer	6.5
Finish Primer/Surfacer	3.5
High Build Primer/Surfacer	2.8
Aluminum Substrate Antifoulant	4.7
Other Substrate Antifoulant	2.8
Antifoulant Sealer/Tie	3.5
All Other	3.5

Motor Vehicle Materials	
Coating Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)
Motor Vehicle Cavity Wax	5.4
Motor Vehicle Sealer	5.4
Motor Vehicle Deadener	5.4
Motor Vehicle Gasket/Gasket- Sealing Material	1.7
Motor Vehicle Underbody	5.4
Motor Vehicle Trunk Interior	5.4
Motor Vehicle Bedliner	1.7
Motor Vehicle Lubricating Wax/Compound	5.8

3. Method and determination of compliance. The emission limits in paragraph (3)(J)2. of this rule shall be achieved through one (1) of the following:

A. VOC content of coatings. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limit in paragraph (3)(J)2. of this rule;

B. Combination of VOC content of coatings and add-on controls. Calculate the required control system efficiency per paragraph (5)(C)4. of this rule. The surface coating unit is in compliance if the actual overall control system efficiency is greater than or equal to the required control system efficiency; or

C. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be ninety percent (90%) or greater.

4. Application equipment. On or after September 1, 2011, one (1) or a combination of the following equipment shall be used for coating application, unless achieving compliance by using an add-on control device per subparagraph (3)(J)3.C. of this rule:

- A. Electrostatic equipment;
- B. HVLP spray equipment;
- C. Flow coating;
- D. Roller coating;
- E. Dip coating, including electrodeposition;
- F. Airless spray;
- G. Air-assisted airless spray; and

H. Other coating application method capable of achieving a transfer efficiency equivalent or better than achieved by HVLP spraying.

5. Work practices. On or after September 1, 2011, work practices shall be used to minimize VOC emissions from solvent storage, mixing operations, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

A. Store all VOC-containing coatings, thinners, and cleaning materials in closed containers;

B. Ensure that mixing and storage containers used for VOC-containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials;

C. Minimize spills of VOC-containing coatings, thinners, and cleaning materials;

D. Clean up spills immediately;

E. Convey any coatings, thinners, and cleaning materials in closed containers or pipes from one (1) location to another; and

F. Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

6. For metal parts coatings, the VOC limits in paragraph (3)(J)2. of this rule do not apply to the following types of coatings and coating operations:

- A. Stencil coatings;
- B. Safety-indicating coatings;
- C. Solid film lubricants;
- D. Electric-insulating and thermal-conducting coatings;
- E. Magnetic data storage disk coatings; and
- F. Plastic extruded onto metal parts to form a coating.

7. For metal parts coatings, the application equipment requirements in paragraph (3)(J)4. of this rule do not apply to the following types of coatings and coating operations:

- A. Touch-up coatings;
- B. Repair coatings; and
- C. Textured coatings.

8. For plastic parts coatings, the VOC limits in paragraph (3)(J)2. of this rule do not apply to the following types of coatings and coating operations:

- A. Touch-up and repair coatings;
- B. Stencil coatings applied on clear or transparent substrates;

- C. Clear or translucent coatings;
- D. Coatings applied at a paint manufacturing installation while conducting performance tests on the coatings;

E. Any individual coating category used in volumes less than fifty (50) gallons in any one (1) year, if substitute compliant coatings are not available, provided that the total usage of all such coatings does not exceed two hundred (200) gallons per year, per installation;

F. Reflective coating applied to highway cones;

G. Mask coatings that are less than one-half (0.5) millimeter thick (dried) and the area coated is less than twenty-five (25) square inches;

H. Electromagnetic interference and radio frequency interference (EMI/RFI) shielding coatings; and

I. Heparin-benzalkonium chloride (HBAC)-containing coatings applied to medical devices, provided that the total usage of all such coatings does not exceed one hundred (100) gallons per year, per installation.

9. For plastic parts coatings, the application equipment requirements in paragraph (3)(J)4. of this rule do not apply to airbrush operations using five (5) gallons or less per year of coating.

10. For automobile, transportation, or business machine plastic parts coatings, the VOC limits in paragraph (3)(J)2. of this rule do not apply to the following types of coatings and coating operations:

- A. Texture coatings;
- B. Vacuum metalizing coatings;
- C. Gloss reducers;
- D. Texture adhesion primers;
- E. Electrostatic preparation coatings;
- F. Resist coatings; and
- G. Stencil coatings.

11. For pleasure craft surface coating operations, the application equipment requirements in paragraph (3)(J)4. of this rule do not apply to extreme high gloss coatings.

12. The limits for military specification coatings in subparagraph (3)(J)2.B. of this rule do not apply to coatings that meet the following criteria:

A. The coating is applied to military equipment used for national defense;

B. The coating performance is critical to the successful operation of the military equipment;

C. The coating is mandated in a specification or contract

and a substitution of coatings that meet the VOC limits in subparagraph (3)(J)2.B. of this rule is prohibited; and

D. The director grants approval for the use of the coating at the installation.

(K) Industrial Adhesive Application.

1. The requirements in this subsection apply to adhesive application processes.

2. Emission limits.

A. On or after September 1, 2011, no owner or operator of an adhesive application process subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of the following, as delivered to the coating applicator(s):

Category	Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds)
Adhesives Applied to the Specific Substrates	
Reinforced Plastic Composites	1.7
Flexible Vinyl	2.1
Metal	0.3
Porous Material (Except Wood)	1.0
Rubber	2.1
Wood	0.3
Other Substrates	2.1
Specialty Adhesive Application Processes	
Ceramic Tile Installation	1.1
Contact Adhesive	2.1
Cove Base Installation	1.3
Floor Covering Installation, Indoor	1.3
Floor Covering Installation, Outdoor	2.1
Floor Covering Installation, Perimeter Bonded Sheet Vinyl	5.5
Metal to Urethane/Rubber Molding or Casting	7.1
Motor Vehicle Adhesive	2.1
Motor Vehicle Weatherstrip Adhesive	6.3
Multipurpose Construction	1.7
Plastic Solvent Welding, ABS	3.3
Plastic Solvent Welding, Except ABS	4.2
Sheet Rubber Lining Installation	7.1
Single-Ply Roof Membrane Installation/Repair, Except EPDM Glue	2.1
Structural Glazing	0.8
Thin Metal Laminating	6.5
Tire Repair	0.8
Waterproof Resorcinol	1.4
Adhesive Primer Application Processes	
Motor Vehicle Glass Bonding Primer	7.5
Plastic Solvent Welding Adhesive Primer	5.4
Single-Ply Roof Membrane Adhesive Primer	2.1
Other Adhesive Primer	2.1

B. The VOC limits in subparagraph (3)(K)2.A. of this rule for adhesives or adhesive primers applied to particular substrates shall apply as follows:

(I) If an adhesive is subject to a specific VOC limit in subparagraph (3)(K)2.A., the specific limit is applicable rather than an adhesive-to-substrate limit; and

(II) When an adhesive is used to bond dissimilar substrates, the applicable substrate category with the highest VOC content shall be the limit.

3. Method and determination of compliance. The emission limits in paragraph (3)(K)2. of this rule shall be achieved through one (1) of the following:

A. VOC content of coatings. Determine the daily volume-weighted average VOC content of all coatings used in an adhesive application process, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds) per subparagraph (5)(C)3.A. of this rule. The adhesive application process is in compliance if this value is less than or equal to the emission limits in paragraph (3)(K)2. of this rule;

B. Combination of VOC content of coatings and add-on controls. Calculate the required control system efficiency per paragraph (5)(C)4. of this rule. The adhesive application process is in compliance if the actual overall control system efficiency is greater than or equal to the required control system efficiency; or

C. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be eighty-five percent (85%) or greater.

4. Application equipment. On or after September 1, 2011, one (1) or a combination of the following equipment shall be used for adhesive application, unless achieving compliance by using an add-on control device per subparagraph (3)(K)3.C. of this rule:

A. Electrostatic spray;

B. HVLP spray;

C. Flow coat;

D. Roller coat or hand application, including non-spray application methods similar to hand- or mechanically-powered caulking gun, brush, or direct-hand application;

E. Dip coat, including electrodeposition;

F. Airless spray;

G. Air-assisted airless spray; and

H. Other adhesive application method capable of achieving a transfer efficiency equivalent or better than achieved by HVLP spraying.

5. Work practices. On or after September 1, 2011, work practices shall be used to minimize VOC emissions from solvent storage, mixing operations, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

A. Store all VOC-containing coatings, thinners, and cleaning materials in closed containers;

B. Ensure that mixing and storage containers used for VOC-containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials;

C. Minimize spills of VOC-containing coatings, thinners, and cleaning materials;

D. Clean up spills immediately;

E. Convey any coatings, thinners, and cleaning materials in closed containers or pipes from one (1) location to another; and

F. Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

(4) Reporting and Record Keeping.

(A) The owner or operator of a surface coating unit covered under this rule shall keep records as necessary to determine com-

pliance. Records kept should be appropriate for the facility, their products, and operations. These may include, as applicable, one (1) or more of the following:

1. Current list of coatings used and the VOC content as applied;

2. Daily volume usage of each coating;

3. Records of the weighted average VOC content for each coating type included in averaging for coating operations that achieve compliance through coating VOC content or a combination of coating VOC content and control system;

4. Annual VOC emissions from surface coating equipment cleaning; and

5. All test results to determine capture efficiency, control efficiency, and coating properties.

(B) Records such as daily production rates may be substituted for actual daily coating use measurements provided the owner submits a demonstration, approved by the director, that these records are adequate for the purposes of this rule.

(C) Any owner or operator using an emission control device to achieve compliance shall maintain daily records of key system operating parameters for emission control equipment including, but not limited to:

1. Identification of the type of emissions control system used;

2. Hours of operation;

3. Routine and non-routine maintenance, including dates and duration of any outages;

4. Records of test reports conducted;

5. An owner or operator of a surface coating unit employing a thermal or catalytic oxidizer to achieve compliance shall comply with the following requirements:

A. Continuous temperature monitoring and recording equipment shall be installed and operated to accurately measure the operating temperature(s) for the control device; and

B. The following information shall be collected and recorded each day of operation of the surface coating unit and the control device:

(I) A log or record of the operating time for the control device, monitoring equipment, and the associated surface coating unit;

(II) For thermal oxidizers, all three (3)-hour periods of operation during which the average combustion temperature was more than fifty degrees Fahrenheit (50°F) below the average combustion temperature during the most recent emission test that demonstrated that the surface coating unit was in compliance; and

(III) For catalytic oxidizers, all three (3)-hour periods of operation during which the average temperature of the exhaust gases immediately before the catalyst bed was more than fifty degrees Fahrenheit (50°F) below the average temperature of the exhaust gases during the most recent emission test that demonstrated that the surface coating unit was in compliance, and all three (3)-hour periods during which the average temperature difference across the catalyst bed was less than eighty percent (80%) of the average temperature difference during the most recent emission test that demonstrated that the surface coating operation was in compliance; and

6. An owner or operator of a surface coating unit employing a carbon adsorption system to achieve compliance shall comply with the following requirements:

A. The following types of monitoring and recording equipment shall be installed and operated for the carbon adsorption system:

(I) A continuous emission monitoring and recording system that is capable of accurately measuring and recording the concentration of organic compounds in the exhaust gases from the carbon adsorption system;

(II) Monitoring and recording equipment that is capable of accurately measuring and recording the total mass steam flow rate for each regeneration cycle of each carbon bed; and

(III) Monitoring and recording equipment that is capable of accurately measuring and recording the temperature of each carbon bed after regeneration (and after completion of any cooling cycle(s)); and

B. The following information shall be collected and recorded each day of operation of the surface coating unit and the carbon adsorption system:

(I) A log or record of the operating time for the carbon adsorption system, monitoring equipment, and the associated surface coating unit;

(II) For a carbon adsorption system that employs a continuous emission monitoring and recording system to measure and record the concentration of organic compounds in the exhaust gases, all three (3)-hour periods of operation during which the average concentration level or reading in the exhaust gases is more than twenty percent (20%) greater than the exhaust gas organic compound concentration level or reading measured by the most recent performance test that demonstrated that the surface coating unit was in compliance;

(III) For a carbon adsorption system that employs monitoring and recording equipment to measure and record the total mass steam flow rate for each regeneration cycle of each carbon bed, all carbon bed regeneration cycles during which the total mass steam flow rate was more than ten percent (10%) below the total mass steam flow rate during the most recent performance test that demonstrated that the surface coating unit was in compliance; and

(IV) For a carbon adsorption system that employs monitoring and recording equipment to measure and record the temperature of each carbon bed after regeneration (and after completion of any cooling cycle(s)) was more than ten percent (10%) greater than the carbon bed temperature during the most recent performance test that demonstrated that the surface coating unit was in compliance.

(D) Records required under subsections (4)(A) through (4)(C) of this rule shall be retained by the owner or operator for a minimum of five (5) years. These records shall be made available to the director upon request.

(5) Test Methods.

(A) Test Methods for Control Systems. Owners or operators demonstrating compliance with the provisions of this rule via a control system shall determine the overall control system efficiency as the product of the capture efficiency and control device efficiency, using the following test methods:

1. The VOC concentration of gaseous air streams shall be determined with a test consisting of three (3) separate runs, each lasting a minimum of sixty (60) minutes using one (1) of the following methods as specified by 40 CFR 60, Appendix A—Reference Methods:

A. Method 18—Measurement of Gaseous Organic Compound Emissions by Gas Chromatography;

B. Method 25—Determination of Total Gaseous Non-methane Organic Emissions as Carbon; or

C. Method 25A—Determination of Total Gaseous Organic Concentration Using Flame Ionization Analyzer;

2. Sample and velocity traverses shall be determined by using one (1) of the following methods as specified by 40 CFR 60, Appendix A—Reference Methods:

A. Method 1—Sample and Velocity Traverses for Stationary Sources; or

B. Method 1A—Sample and Velocity Traverses for Stationary Sources with Small Stacks or Ducts;

3. Velocity and volumetric flow rates shall be determined by using one (1) of the following methods as specified by 40 CFR 60,

Appendix A—Reference Methods:

A. Method 2—Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube);

B. Method 2A—Direct Measurement of Gas Volume Through Pipes and Small Ducts;

C. Method 2C—Determination of Stack Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube);

D. Method 2D—Measurement of Gas Volumetric Flow Rates in Small Pipes and Ducts;

E. Method 2F—Determination of Stack Gas Velocity and Volumetric Flow Rate With Three-Dimensional Probes;

F. Method 2G—Determination of Stack Gas Velocity and Volumetric Flow Rate With Two-Dimensional Probes; or

G. Method 2H—Determination of Stack Gas Velocity Taking Into Account Velocity Decay Near the Stack Wall;

4. To analyze the exhaust gases, use the method in 10 CSR 10-6.030(3);

5. To measure the moisture in the stack gas, use the method in 10 CSR 10-6.030(4); and

6. To determine capture efficiency, use the procedure in 10 CSR 10-6.030(20).

(B) Test Methods for Determining Coating Properties. The coating properties in paragraphs (5)(B)1. through (5)(B)6. of this rule shall be determined from the coating manufacturer's supplied data or the method referenced in 10 CSR 10-6.030(14)(C). If there is a discrepancy between the manufacturer's supplied data and the method referenced in 10 CSR 10-6.030(14)(C), compliance shall be based on the method referenced in 10 CSR 10-6.030(14)(C).

1. Density of coating, D_C .

A. Electrodeposition primer. For electrodeposition primer, the coating density shall be as received.

B. All other coatings. For all other coatings, the coating density shall be as applied.

2. Volume fraction of solids in the coating, V_S .

A. Electrodeposition primer. For electrodeposition primer, the volume fraction of solids in the coating shall be as received.

B. All other coatings. For all other coatings, the volume fraction of solids in the coating shall be as applied.

3. Weight fraction of exempt compounds in the coating, W_E .

4. Weight fraction of regulated VOC in the coating, W_O . This value does not include the weight fraction of water or exempt compounds.

A. Electrodeposition primer. For electrodeposition primer, the weight fraction of VOC in the coating shall be as received.

B. All other coatings. For all other coatings, the weight fraction of VOC in the coating shall be as applied.

5. Weight fraction of solids in the coating, W_S .

6. Weight fraction of water in the coating, W_W .

(C) Other Test Methods and Calculations.

1. Calculating the VOC content of the coating.

A. The VOC content of the coating as applied, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), shall be determined using Equation (1) as follows:

$$B = \frac{D_C \times W_O}{1 - \left(\frac{D_C \times W_W}{8.33} \right) - \left(\sum_{j=1}^m \frac{D_C \times W_{Ej}}{D_{Ej}} \right)} \quad (1)$$

Where:

B = VOC content of the coating as applied, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds);

D_C = density of coating as applied, expressed as pounds per gallon;

W_O = weight fraction of regulated VOC in the coating, as applied. This value does not include the weight fraction of water or exempt compounds;

W_W = weight fraction of water in the coating, as applied;

W_E = weight fraction of exempt compounds in the coating, as applied;

D_E = density of each exempt compound, expressed as pounds per gallon;

m = number of exempt compounds in the coating; and

8.33 = density of water, expressed as pounds per gallon.

B. The VOC content of the coating as applied, expressed as pounds of VOC per gallon of coating solids, shall be determined using Equation (2) as follows:

$$B_S = \frac{D_C \times W_O}{V_S} \quad (2)$$

Where:

B_S = VOC content of the coating as applied, expressed as pounds of VOC per gallon of coating solids;

D_C = density of coating as applied, expressed as pounds per gallon;

W_O = weight fraction of regulated VOC in the coating, as applied. This value does not include the weight fraction of water or exempt compounds; and

V_S = volume fraction of solids in the coating, as applied.

C. The VOC content of the coating as applied, expressed as pounds of VOC per pound of coating solids, shall be determined using Equation (3) as follows:

$$B_{MWS} = \frac{D_C \times W_O}{D_C \times W_S} \quad (3)$$

Where:

B_{MWS} = VOC content of the coating as applied, expressed as pounds of VOC per pound of coating solids;

D_C = density of coating as applied, expressed as pounds per gallon;

W_O = weight fraction of regulated VOC in the coating, as applied. This value does not include the weight fraction of water or exempt compounds; and

W_S = weight fraction of solids in the coating, as applied.

2. Equivalent emission limits. Emission limits expressed as pounds of VOC per gallon of coating (minus water and exempt compounds) shall be converted to an equivalent emission limit expressed as pounds of VOC per gallon of coating solids using Equation (4) as follows:

$$L_S = \frac{L}{\left(1 - \frac{L}{7.36}\right)} \quad (4)$$

Where:

L_S = emission limit expressed as pounds of VOC per gallon of coating solids;

L = emission limit expressed as pounds of VOC per gallon of coating (minus water and exempt compounds); and

7.36 = average density of solvents, in pounds per gallon, used to originally establish the emission limits.

3. Weighted averaging.

A. The daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of

VOC per gallon of coating (minus water and exempt compounds), shall be calculated using Equation (5) as follows:

$$DAVG_{VW} = \frac{\sum_{i=1}^n (A_i \times B_i)}{C} \quad (5)$$

Where:

$DAVG_{VW}$ = daily volume-weighted average VOC content, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds);

A = daily gallons of each coating used (minus water and exempt compounds) in a surface coating unit;

B = VOC content of the coating as applied, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds). This is determined by subparagraph (5)(C)1.A. of this rule;

C = total daily gallons of coatings used (minus water and exempt compounds) in a surface coating unit; and

n = number of coatings used in a surface coating unit.

B. The daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating solids, shall be calculated using Equation (6) as follows:

$$DAVG_{VWS} = \frac{\sum_{i=1}^n (A_{S_i} \times B_{S_i})}{C_S} \quad (6)$$

Where:

$DAVG_{VWS}$ = daily volume-weighted average VOC content, expressed as pounds of VOC per gallon of coating solids;

A_S = daily gallons of coating solids for each coating used in a surface coating unit;

B_S = VOC content of the coating as applied, expressed as pounds of VOC per gallon of coating solids. This is determined by subparagraph (5)(C)1.B. of this rule;

C_S = total daily gallons of coatings solids used in a surface coating unit; and

n = number of coatings used in a surface coating unit.

C. The daily mass-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per pound of coating solids, shall be calculated using Equation (7) as follows:

$$DAVG_{MWS} = \frac{\sum_{i=1}^n (A_{MWS_i} \times B_{MWS_i})}{C_{MWS}} \quad (7)$$

Where:

$DAVG_{MWS}$ = daily mass-weighted average VOC content, expressed as pounds of VOC per pound of coating solids;

A_{MWS} = daily pounds of coating solids for each coating used in a surface coating unit;

B_{MWS} = VOC content of the coating as applied, expressed as pounds of VOC per pound of coating solids. This is determined by subparagraph (5)(C)1.C. of this rule;

C_{MWS} = total daily pounds of coatings solids used in a surface coating unit; and

n = number of coatings used in a surface coating unit.

D. The monthly volume-weighted average VOC emission rate of an electrodeposition primer, expressed as pounds of VOC per gallon of coating solids deposited, shall be determined using Equation (8) as follows:

$$MAVG_{VWS} = \left[\frac{\sum_{i=1}^n L_{C_i} D_{C_i} W_{O_i} + \sum_{j=1}^m L_{D_j} D_{D_j}}{\sum_{i=1}^n L_{C_i} V_{S_i}} \right] \times [1-E/100] \quad (8)$$

Where:

$MAVG_{VWS}$ = monthly volume-weighted average VOC emission rate of the electrodeposition primer, expressed as pounds of VOC per gallon of coating solids deposited;

L_C = monthly volume of each coating consumed, as received, expressed as gallons;

D_C = density of each coating as received, expressed as pounds per gallon;

W_O = weight fraction of VOC in each coating, as received;

L_D = monthly volume of each type of VOC dilution solvent added to the coating, expressed as gallons;

D_D = density of each type of VOC dilution solvent added to the coating, expressed as pounds per gallon;

V_S = volume fraction of solids in each coating as received, expressed as gallons of solids per gallon of coating;

E = overall control system efficiency;

n = number of coatings used; and

m = number of VOC dilution solvents used.

E. The monthly volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), shall be calculated using Equation (9) as follows:

$$MAVG_{VW} = \frac{\sum_{i=1}^n (A_i \times B_i)}{C} \quad (9)$$

Where:

$MAVG_{VW}$ = monthly volume-weighted average VOC content as applied, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds);

A = monthly gallons of each coating used (minus water and exempt compounds) in a surface coating unit;

B = VOC content of the coating as applied, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), as delivered to the coating applicator. This is determined by subparagraph (5)(C)1.A. of this rule;

C = total monthly gallons of coatings used (minus water and exempt compounds) in a surface coating unit; and

n = number of coatings used in a surface coating unit.

4. The required control system efficiency shall be determined using Equation (10) as follows:

$$R = \left[\frac{(DAVG_{VWS} - L_S)}{DAVG_{VWS}} \right] \times 100 \quad (10)$$

Where:

R = required control system efficiency;

$DAVG_{VWS}$ = daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating solids, per subparagraph (5)(C)3.B. of this rule; and

L_S = emission limits expressed as pounds of VOC per gallon of coating solids, per paragraph (5)(C)2. of this rule.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will cost private entities \$2,280,500 in the aggregate. This consists of a one (1)-time initial capital cost of one hundred fifty thousand dollars (\$150,000) and two hundred thirteen thousand fifty dollars (\$213,050) in annualized costs.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed amendment will begin at 9:00 a.m., February 3, 2011. The public hearing will be held at the Doubletree Hotel and Conference Center, Ballrooms C, D, and E, 16625 Swingley Ridge Road, Chesterfield, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., February 10, 2011. Written comments shall be sent to Chief, Air Quality Planning Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

AUTHORITY: section 643.050, RSMo Supp. [1999] 2010. Original rule filed Dec. 15, 1978, effective July 12, 1979. For intervening history, please consult the *Code of State Regulations*. Amended: Filed Nov. 30, 2010.

**FISCAL NOTE
PRIVATE COST**

- I. Department Title:** 10 – Department of Natural Resources
Division Title: 10 – Air Conservation Commission
Chapter Title: 5 – Air Quality Standards and Air Pollution Control Rules Specific to the St. Louis Metropolitan Area

Rule Number and Title:	10 CSR 10-5.330 Control of Emissions From Industrial Surface Coating Operations
Type of Rulemaking:	Amendment to Existing Rule

II. SUMMARY OF FISCAL IMPACT

Estimate of the number of entities by class which would likely be affected by the adoption of the rule:	Classification by types of the business entities which would likely be affected:	Estimate in the aggregate as to the cost of compliance with the rule by the affected entities:
Approximately seventy (70) surface coating facilities in the St. Louis ozone non-attainment area.	North American Industry Classification System codes: 316, 321, 326, 331, 332, 333, 334, 336, 337, 339, 482, 811, 321211, 321212, 321219, 321999, 332116, 332612, 332951, 333312, 333319, 335121, 335122, 335221, 335222, 335224, 335228, 336111, 336112, 336211, 337124, 337127, 337214, 337215, 339111, 339114, 81142 Standard Industry Classification codes: 2514, 2522, 2531, 2542, 2599, 3631, 3632, 3633, 3639, 3429, 3469, 3495, 3585, 3589, 3645, 3646, 3821, 3843 Source Classification Codes: 40200701, 40200706, 40200707, 40200710, 40200711, 40200712	\$2,280,500

III. WORKSHEET

A survey was sent to seventy (70) facilities in the St. Louis ozone non-attainment area that perform surface coating operations that are likely to be affected by the rulemaking. The survey informed them of the Control Techniques Guidelines (CTGs) recently published by the U. S. Environmental Protection Agency (EPA) and requested information on the volatile organic compound (VOC) content, quantity, category, and cost of the coatings they use; the type of application equipment they use to apply the coatings; the total VOC emissions from surface coating operations; and the coating category and cost of the coatings they would use under the proposed limits set forth in the

CTGs. These facilities were identified by using Standard Industrial Classification codes, North American Industry Classification System codes, and Source Classification Codes that EPA listed in the CTGs and relevant Federal Register Notices.

Responses were received from 48 facilities. The information from the responding facilities was compiled to determine the total cost associated with compliance to the proposed limits. The results of the survey show:

Coating Category	Incremental Cost (Annualized)	Incremental Cost (Assuming 10 Year Rule Life)	One-Time Capital Cost	Total Cost of Compliance
Miscellaneous Metal and Plastic Parts	\$205,410	\$2,054,100	\$150,000	\$2,204,100
Automobile and Light-Duty Truck Assembly	\$0	\$0	\$0	\$0
Large Appliance	\$0	\$0	\$0	\$0
Metal Furniture	\$0	\$0	\$0	\$0
Flat Wood Paneling	\$0	\$0	\$0	\$0
Paper, Film, and Foil	\$3,662	\$36,620	\$0	\$36,620
Adhesive	\$3,978	\$39,780	\$0	\$39,780
Total	\$213,050	\$2,130,500	\$150,000	\$2,280,500

IV. ASSUMPTIONS

1. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be ten (10) years although the duration of the rule is indefinite. If the life of the rule extends beyond ten years, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.
2. Compliance with the proposed emission limits would be achieved by using coatings with a weighted average VOC content that is equal to or below the proposed limits. No control system would be used to achieve compliance. This assumption is consistent with the EPA CTG cost consideration.
3. The incremental cost of compliance results from the reformulation or substitution of coatings that meet the proposed limits. In many instances, the cost of the reformulated coating per gallon is higher than the cost per gallon of the present coating.
4. Where responding facilities provided a cost estimate for the coating they would use to comply with the proposed limits, that cost was used to estimate their cost of compliance.
5. Where responding facilities did not provide a cost estimate for the coating they would use to comply with the proposed limits, the cost of compliance was

estimated by using the cost effectiveness in the CTGs. These cost effectiveness values, expressed at dollars per ton of VOC emission reduction, are:

- a. Miscellaneous Metal and Plastic Parts Coatings - \$1,758.
 - b. Automobile and Light-Duty Truck Assembly Coatings - \$0. The EPA states that affected facilities are already using the control measures in the CTG and, therefore, should incur no additional costs.
 - c. Large Appliance Coatings - \$500.
 - d. Metal Furniture Coatings - \$200.
 - e. Flat Wood Paneling Coatings - \$1,600.
 - f. Paper, Film, and Foil Coatings - \$1,200.
 - g. Miscellaneous Industrial Adhesives - \$265.
6. Where facilities did not reply to the survey, information for their VOC emissions was obtained from 2008 Missouri Emissions Inventory System (MOEIS) records. Using this information, the VOC reduction percentage and cost per ton from the appropriate CTGs were used to determine their estimated cost of compliance and reduction in VOC emissions. Facilities that showed no VOC emissions from surface coating operations in their 2008 MOEIS record were assumed to have no cost impact and no VOC reductions. Facilities that had no 2008 MOEIS record were not included in the calculations.
 7. The annual quantity of each coating used would remain the same for the present coatings and the coatings used to comply with the proposed limits. In other words, they would have the same substrate coverage.
 8. The coating usage was based on calendar year 2008 data from industry surveys or MOEIS records.
 9. When the proposed emission limit was less than the present VOC content of the coating, the VOC emission reduction, excluding adhesives, was calculated using the following equation:

$$AR_{VOC} = \frac{(C - L) \cdot U}{2000}$$

Where:

AR_{VOC} = is the annual VOC reductions, expressed as tons

C = Present VOC content of the coating, expressed as pounds of VOC per gallon of coating

L = The VOC content of the coating under the proposed limits, expressed as pounds of VOC per gallon of coating. This VOC content was assumed to be equal to the proposed limits.

U = Annual quantity of coating used, expressed as gallons per year. This was assumed to be equal for the present coating and the proposed coating.

10. For adhesives, the VOC reduction was assumed to be 64% with a cost effectiveness of \$265 per ton, as stated in the CTG.
11. The financial figures for the information received from the surveyed facilities are in 2008 dollars. The cost effectiveness figures presented in the individual CTGs are assumed to be current for the year they were published, ranging from 2006 to 2008.
12. No additional recordkeeping costs will be incurred. Affected facilities are already maintaining records of the quantity and weighted average VOC content of their coatings.

Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 5—Air Quality Standards and Air Pollution
Control Rules Specific to the St. Louis Metropolitan
Area

PROPOSED AMENDMENT

10 CSR 10-5.340 Control of Emissions From Rotogravure and Flexographic Printing [Facilities] Operations. The commission proposes to amend the rule title and rule purpose; amend sections (1), (2), (3), (4), and (5); and delete section (6). If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule that is in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/regs/index.html.

***PURPOSE:** This rule restricts volatile organic compound emissions from rotogravure and flexographic printing operations including flexible package printing operations. This amendment will update the rule to include specific emission limits of volatile organic compounds for flexible package printing operations in the St. Louis ozone nonattainment area. This will make the limits consistent with the current federal Reasonably Available Control Technology guidance documents. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is the U.S. Environmental Protection Agency 2006 Control Techniques Guidelines for flexible package printing and Clean Air Act section 182(b)(2).*

***PURPOSE:** This rule restricts volatile organic compound emissions from rotogravure and flexographic printing [facilities] operations including flexible package printing operations.*

(1) [Application] Applicability.

(A) This rule shall apply throughout St. Louis City and Jefferson, St. Charles, Franklin, and St. Louis Counties.

(B) This rule applies to installations with at least one (1) of the following:

1. /u/Uncontrolled potential emissions equal to or greater than two hundred fifty kilograms (250 kg) per day or one hundred (100) tons per year of volatile organic compounds (VOC) from the combination of rotogravure and flexographic printing presses. The uncontrolled potential emissions are the potential emissions (as defined) plus the amount by weight of VOCs whose emission into the atmosphere is prevented by the use of air pollution control devices[.];

2. Individual flexible package printing press(es) with the potential to emit VOCs in an amount equal to or greater than twenty-five (25) tons per year; and

3. Flexible package printing operations that have actual VOC emissions, including related cleaning activities, before consideration of controls, of at least three (3) tons per twelve (12)-month rolling period. Once an installation exceeds this applicability level, it shall remain subject to this rule even if its actual emissions drop below this applicability level until it can demonstrate, to the satisfaction of the director, that the total actual VOC emissions from flexible package printing operations including related cleaning activities, is less than three (3) tons per twelve (12)-month rolling for five (5) consecutive twelve (12)-month periods.

(2) Definitions.

[[A)] Definitions of certain terms specified in this rule may be found in 10 CSR 10-6.020.

[[B)] The definition of a term specific to this rule is as follows: ink formulation as applied, includes the base ink and any additives such as thinning solvents to make up the ink material that is applied to a substrate.]

(3) [Emission Limits] General Provisions.

(A) [No owner or operator shall use or permit the use of any of the following printing presses unless they are equipped with a control device. The control device shall remove, destroy or prevent the emission of VOCs into the ambient air by at least the percentage indicated by weight of the uncontrolled VOC emissions on a daily weighted basis.] **VOC Emission Control for Flexographic and Rotogravure Printing Presses.** Each source that satisfies the applicability requirement of paragraph (1)(B)1. of this rule shall meet one (1) of the following:

1. No owner or operator shall use or permit the use of any of the following printing presses unless they are equipped with a control device. The control device shall remove, destroy, or prevent the emission of VOCs into the ambient air by at least the percentage indicated by weight of the uncontrolled VOC emissions on a daily weighted basis.

Printing Press	Percentage
Flexographic	60
Publication Rotogravure	75
Other Rotogravure	65

or

[[B)]2. Low solvent technology may be used to achieve VOC emission reductions instead of the methods [required] in [subsection] paragraph (3)(A)1. of this rule. If low solvent technology is used, the following limits must be met for each press:

1./A. For waterborne inks, the volatile portion of the ink as applied to the substrate must contain no more than twenty-five percent (25%) by volume of VOC; and

2./B. For water-based or high solids inks, the ink as applied to the substrate must be at least sixty percent (60%) by volume non-VOC material.

(B) **VOC Emission Control for Flexible Package Printing Presses.** Each source that satisfies the applicability requirement of paragraph (1)(B)2. of this rule shall meet one (1) of the following:

1. No owner or operator shall use or permit the use of any of the following flexible packaging printing presses unless they are equipped with a control device. The control device shall remove, destroy, or prevent the emission of VOCs into the ambient air by at least the percentage indicated by weight of the uncontrolled VOC emissions on a daily weighted basis.

Flexible Package Printing Press First Installed	VOC Control Device First Installed	VOC Control Percentage
Prior to March 14, 1995	Prior to September 1, 2011	65
Prior to March 14, 1995	On or after September 1, 2011	70
On or after March 14, 1995	Prior to September 1, 2011	75
On or after March 14, 1995	On or after September 1, 2011	80

or

2. Low solvent technology may be used to achieve VOC emission reductions instead of the methods in paragraph (3)(B)1. of this rule. If low solvent technology is used, all inks, coatings, and adhesives combined must meet one (1) of the following limits for each press:

A. Contain no more than 0.8 pounds of VOC per pound solids applied; or

B. Contain no more than 0.16 pounds of VOC per pound materials applied.

(C) *[No owner or operator shall use or permit the use of any flexographic or rotogravure printing press that uses cleanup] Press Cleaning.* For the purpose of this rule, a cleaning operation is any activity involving the cleaning of a press or press parts or removal of dried ink from areas around a press including the off-line cleaning of inks, coatings, and adhesives from press parts that have been removed from the press for cleaning. It does not include the use of parts washers or cold cleaners for purposes other than removing inks, coatings, or adhesives or the use of janitorial supplies (e.g., detergents or floor cleaners) to clean areas around a press. For sources meeting any of the applicability requirements of subsection (1)(B) of this rule, no owner or operator of any applicable printing press shall perform a cleaning operation that uses cleaning solvents containing VOCs unless—

1. The *[cleanup] cleaning* solvents are kept in tightly-covered tanks or containers during transport and storage;

2. The *used* cleaning cloths *[used] contaminated* with the *[cleanup] cleaning* solvents are placed in tightly-closed containers *[when not in use and]* while awaiting off-site transportation. The cleaning cloths *[should] shall* be properly cleaned and disposed of. *The cloths, when properly cleaned or disposed of, are processed in a way that as much of the solvent as practicable is recovered for some further use or destroyed. Cleaning and disposal methods shall be approved by the director;* and

3. An owner or operator may use an alternate method for reducing *[cleanup] cleaning* solvent VOC emissions, including the use of low VOC *[cleanup] cleaning* solvents, if the owner or operator shows the emission reduction is equal to or greater than paragraphs (3)(C)1. and 2. of this rule. This alternate method must be approved by the director.

(4) **Reporting and Record Keeping.** All owners and operators subject to this rule shall maintain records as required by this section to determine continuous compliance with this rule. These records shall be kept for at least five (5) years or longer if enforcement action is pending. These records shall be available immediately upon request for review by the Department of Natural Resources' personnel and other air pollution control agencies upon presentation of proper credentials.

(A) For owners or operators using an add-on control device(s) to meet the requirements of *[subsection] paragraph (3)(A)1. or (3)(B)1. of this rule*, the following parameters shall be monitored and recorded to determine compliance with *[subsection (3)(A)] the applicable provisions of this rule*:

1. *[Exhaust gas] Operating* temperature of all *[incinerators or temperature rise across a catalytic incinerator bed] VOC destruction devices monitored* on a continuous basis while a connected printing press is operating and logged at least once every fifteen (15) minutes. The operating temperature is the gas temperature upstream of the catalyst bed for catalytic oxidizers and the oxidizer operating temperature for thermal and regenerative oxidizers;

2. VOC breakthrough on a carbon adsorption unit on a continuous basis;

3. Results of all emissions testing and inspections of control equipment as required in section (5) of this rule when performed;

4. Maintenance, repairs, and malfunction of any air pollution control equipment when performed; *and]*

5. The cumulative amount of VOC recovered during a calendar month for all VOC recovery equipment; and

[5.]6. Any other monitoring parameter required by the director to determine compliance with *[subsection] paragraph (3)(A)1. or (3)(B)1. of this rule*.

(B) For owners or operators meeting the requirements of *[subsection (3)(B)] paragraphs (3)(A)2. and (3)(B)2. of this rule*, for

each ink formulation used, the following shall be recorded for each press to determine continuous compliance with *[subsection (3)(B)] the applicable provisions of this rule*:

1. Volume-weighted ink VOC content in percent by volume for each ink formulation as applied on a monthly basis;

2. Results of ink testing as required in section (5) of this rule when performed, **manufacturer's formula specification sheet, or Material Safety Data Sheets (MSDS) for each ink purchased;** and

3. Any other information required by the director to determine compliance with *[subsection] paragraph (3)(A)2. or (3)(B)2. of this rule*.

(C) For owners and operators using low solvent technology without the use of control equipment to meet the requirements of *[subsection (3)(B)] paragraphs (3)(A)2. and (3)(B)2. of this rule*, and for whom subsection (4)(B) of this rule does not apply, the following shall be recorded in addition to the records required by *subsection (4)(B) of this rule* to determine daily compliance with *[subsection (3)(B)] the applicable provisions of this rule*:

[1. Volume-weighted ink VOC content in percent by volume for each ink formulation as applied on a monthly basis;]

[2.]1. Ink usage in gallons for each ink formulation as applied on a daily basis for each press;

[3.]2. Volume-weighted density of VOCs in ink in pounds per gallon for each ink formulation as applied on a daily basis;

[4.]3. Volume-weighted average of the VOC content of each ink formulation as applied in percent by volume for each press on a daily basis;

[5.]4. Ink water content in percent by volume for each ink formulation as applied on a daily basis for each press; **and**

[6.]5. Ink exempt solvent content in percent by volume for each ink formulation as applied on a daily basis for each press*[:]*.

[7. Results of ink testing as required in section (5) of this rule when performed; and

8. Any other information required by the director to determine compliance with subsection (3)(B).

(D) *Records of all information required in subsections (4)(A)–(C) shall be kept for at least two (2) years. These records shall be available immediately upon request for review by Department of Natural Resources personnel and other air pollution control agencies with proper authority.]*

(5) *[Determination of Compliance] Test Methods.*

(A) Testing and compliance demonstrations for the emission limits of *[subsection] paragraph (3)(A)1. or (3)(B)1. of this rule* shall follow the procedures contained in 10 CSR 10-6.030(14)(A) and 10 CSR 10-6.030(20). The averaging time for these tests shall be three (3) one (1)-hour tests. These procedures will determine control device capture efficiency and destruction efficiency. Control device testing will be required as the director determines necessary to verify the capture and destruction efficiencies. At a minimum, *[control device testing must be completed and submitted once to the appropriate air pollution control agency within one hundred eighty (180) days after this provision of the rule is effective (Aug. 5, 1992), unless the director determines that a valid test is already on file. Inlet and outlet gas temperature rise across a catalytic incinerator shall be used to determine daily compliance.]* an initial emission test shall be performed after any required control equipment is installed. The emission limits of *paragraph (3)(A)1. or (3)(B)1. of this rule* shall not have been met until compliance has been verified at least once through this testing. Testing shall also be required after significant modifications to any control equipment required by this rule. Significant modifications include any repairs or changes that might substantially alter or affect the overall control efficiency. The oxidizer operating temperature or the temperature of the gas upstream of the catalyst bed monitored and recorded in accordance with *paragraph (4)(A)1. of this rule* shall be used as the operating parameter for determining continuous compliance. These temperatures

shall be monitored with an accuracy of the greater of plus or minus three-fourths percent ($\pm 0.75\%$) of the temperature being measured expressed in degrees Celsius or two and one-half degrees Celsius (2.5°C). **The operating parameter temperatures shall be computed as the time-weighted average of the temperature values recorded during the test. The owner or operator must maintain the oxidizer at a three (3)-hour average temperature no less than fifty degrees Fahrenheit (50°F) below the average temperature observed during the most recent stack test to demonstrate continuous compliance.**

(B) Testing and compliance demonstrations for the emission limits of *[subsection (3)(B)] paragraph (3)(A)2. or (3)(B)2. of this rule* shall follow the procedures contained in 10 CSR 10-6.030 **subsections (14)(C) and (D), respectively.** *[This] These* procedures will determine the VOC content of inks. Ink testing will be required as the director determines necessary to verify the manufacturers' formula specifications. *[At a minimum, ink testing will be required once after February 6, 1992.]* Ink manufacturer's formula specifications or MSDS shall be used to determine *[daily]* compliance.

(C) **Control Device Inspection.** For catalytic oxidizers, the catalyst bed material shall be inspected annually for general catalyst condition and any signs of potential catalyst depletion. The owner or operator shall also collect a representative sample of the catalyst from the oxidizer, per manufacturer's recommendations, and have it tested to evaluate the catalyst's capability to continue to function at or above the required control efficiency. An evaluation of the catalyst bed material shall be conducted whenever the results of the inspection indicate signs of potential catalyst depletion or poor catalyst condition based on manufacturer's recommendations, but not less than once per year.

[(6) Compliance Dates.

(A) *The owner or operator of a rotogravure or flexographic printing installation subject to this rule must submit a final control plan to the director by December 31, 1980, for his/her approval. This plan must include the following:*

- 1. A detailed plan of process modifications; and*
- 2. A time schedule for compliance containing increments of progress and a final compliance date.*

(B) *Compliance with this rule shall be accomplished by any installation as expeditiously as practicable, but in no case shall final compliance extend beyond December 31, 1982.]*

AUTHORITY: section 643.050, RSMo [1994] **2000.** Original rule filed March 13, 1980, effective Sept. 12, 1980. Amended: Filed Nov. 10, 1981, effective May 13, 1982. Amended: Filed Oct. 4, 1988, effective March 11, 1989. Amended: Filed July 15, 1991, effective Feb. 6, 1992. Amended: Filed Nov. 30, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will cost private entities eight hundred fifty-two thousand dollars (\$852,000) in the aggregate. This consists of a one (1)-time initial capital cost of two hundred thirty-two thousand dollars (\$232,000) and sixty-two thousand dollars (\$62,000) in annualized costs.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed amendment will begin at 9:00 a.m., February 3, 2011. The public hearing will be held at the Doubletree Hotel and Conference Center, Ballrooms C, D, and E, 16625 Swingley Ridge Road, Chesterfield, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., February 10, 2011. Written comments shall be sent to Chief, Air Quality Planning

Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

**FISCAL NOTE
PRIVATE COST**

- I. Department Title:** 10 – Department of Natural Resources
Division Title: 10 – Air Conservation Commission
Chapter Title: 5 – Air Quality Standards and Air Pollution Control Rules Specific to the St. Louis Metropolitan Area

Rule Number and Title:	10 CSR 10-5.340 Control of Emissions From Rotogravure and Flexographic Printing Facilities
Type of Rulemaking:	Amendment to Existing Rule

II. SUMMARY OF FISCAL IMPACT

Estimate of the number of entities by class which would likely be affected by the adoption of the rule:	Classification by types of the business entities which might be affected:	Estimate in the aggregate as to the cost of compliance with the rule by the affected entities:
2	Flexible Package Printing North American Industry Classification System codes (NAICS): 322221, 326112, 322223, 3265111, 322224, 32225, 332999 Standard Industry Classification code (SIC): 2754 Source Classification Codes (SCC): 40500301, 40500302, 40500311, 40500312, 40500314, 40500501, 40500511, 40500512, 40500513, 40500514	\$852,000

III. WORKSHEET

Flexible Package Printing (FPP)

Proposed Rule Provisions	Estimated # of applicable presses or facilities (N)	Total Capital Investment (TCI)	Total Annual Cost (TAC) (per press / facility)	Total Cost of Compliance over life of rule (TCC)
Press/Dryer VOC Emission Controls (Catalytic Oxidizer)	1	\$232,000	\$62,000	\$852,000
Cleaning	2	\$0	\$0	\$0
		\$232,000	\$62,000	\$852,000

$$(TCC) = N * [(TCI) + 10 * (TAC)]$$

IV. ASSUMPTIONS

1. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be 10 years although the duration of the rule is indefinite. If the life of the rule extends beyond ten years, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.
2. Since this rule amendment is substantially similar to the emission limits and techniques presented in the U.S. Environmental Protection Agency's (EPA) *Control Techniques Guidelines (CTG) for Flexible Package Printing* (EPA-453/R-06-003, September 2006), this private entity fiscal cost analysis is based on the CTG cost estimates outlined in Appendix B of that document.
3. All figures are in 2005 dollars matching EPA's cost analysis.
4. Costs are based on 2 flexible package printing (FPP) facilities being applicable at the 3 tons per year (tpy) threshold that will have to comply with the cleaning provisions and 1 FPP press at the 25 tpy potential to emit level that will have to install a dryer VOC control device.
5. Costs are based on the VOC control device being an add-on fixed bed catalytic oxidizer with either a dryer exhaust rate of 2900 cubic feet per minute (cfm), or a dryer air flow rate of 5800 cfm employing recirculation at 50%. This typical or average installation matches Case 1.A in Appendix B of the EPA's CTG and has the specifications as outlined in the table below:

FPP Dryer Typical Fixed Bed Catalytic Oxidizer

Parameter	Specification
Solvent usage, tpy	25
Capture efficiency, %	70%
Control device efficiency, %	95%
Operating hours, hr/yr	2000hr/yr
Exhaust rate/oxidizer capacity	2900 cfm
TCI, \$	\$232,000
Solvent loading, lb/hr	17.5 lb/hr
Assumed VOC compound	toluene
VOC concentration, parts per million by volume (ppmv)	420 ppmv
TAC, \$	\$62,000
Solvent loading, tpy	17.5 ton/yr
VOC emission reduction, 95% efficiency	16.6
Cost effectiveness, \$/ton	3,700

6. Total capital investment costs for the add-on control device is based on purchased equipment costs which include the control device and auxiliary equipment costs, instrumentation costs, sales tax, and freight costs. Costs for instrumentation (10 percent), sales tax (3 percent), and freight (5 percent) were estimated to be 18

percent of control device and auxiliary equipment costs.

7. Several components of the annual costs include direct annual costs such as labor wages and maintenance costs, utilities, and raw materials. Common costs for indirect annual costs include overhead and administrative charges. Direct costs are listed below:

Assumptions for TAC Calculations

Parameter	Factor
Direct Annual Costs	
Operator Wage Rate (except steam stripper)	\$12.95/hr
Maintenance Labor Wage Rate	\$14.95/hr
Supervisor Labor Cost	15 percent of Operator labor cost
Maintenance materials cost	100 percent of Maintenance Labor cost
Utilities	\$3.30 per 1,000 scf
Natural Gas Cost	\$0.059 per kW-hr
Electricity Cost	
Indirect Annual Costs	
Overhead	60 percent of all labor and maintenance material costs
Admin, Property Taxes, and Insurance	4 percent of TCI

8. The cleaning provisions outline responsible work practices: keeping cleaning materials and used shop towels in closed containers, and conveying cleaning materials from one location to another in closed containers or pipes. Since these work practices could result in offsetting cleaning solvent costs, it is assumed that there is no cost to comply with the cleaning provisions.
9. No additional recordkeeping costs will be incurred. Affected facilities are either already maintaining appropriate records or additional recordkeeping costs are negligible.

Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 5—Air Quality Standards and Air Pollution
Control Rules Specific to the St. Louis Metropolitan
Area

PROPOSED AMENDMENT

10 CSR 10-5.442 Control of Emissions From Lithographic and Letterpress Printing Operations. The commission proposes to amend the rule title and rule purpose; amend sections (1), (2), (3), and (4); delete section (5); and renumber and amend section (6). If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule that is in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/regs/index.html.

PURPOSE: *This rule restricts volatile organic compound emissions from lithographic and letterpress printing operations. This amendment will update the rule to include specific emission limits of volatile organic compounds for both offset lithographic and letterpress printing operations in the St. Louis ozone nonattainment area. This will make the limits consistent with the current federal Reasonably Available Control Technology guidance documents. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is the U.S. Environmental Protection Agency 2006 Control Techniques Guidelines for offset lithographic printing and letterpress printing and Clean Air Act section 182(b)(2).*

PURPOSE: *This rule restricts volatile organic compound emissions from lithographic and letterpress printing operations.*

[(1) Definitions. Definitions of some terms specified in this rule may be found in 10 CSR 10-6.020. Other definitions specific to this rule are as follows:

(A) Alcohol—Refers to isopropanol, isopropyl alcohol; normal propyl alcohol or ethanol;

(B) Alcohol Substitutes—Nonalcohol additives that contain volatile organic compounds (VOCs) and are used in the fountain solution;

(C) Cleanup solution—A liquid used to remove printing ink and debris from the surfaces of the printing press and its parts;

(D) Fountain solution—The solution which is applied to the image plate to maintain the hydrophilic properties of the non-image areas. It is primarily water containing an etchant, gum arabic and a dampening aid;

(E) Heatset—A class of web-offset lithography which requires a heated dryer to evaporate the ink oils and solvents from the printing inks;

(F) Lithographic printing—A printing process where a planographic plate is used with the image area oleophilic and the nonimage area hydrophilic;

(G) Press—A printing production assembly that can be made up of one (1) or many units to produce a finished product;

(H) Printing—Any operation that imparts color, design, alphabet, or numerals on a substrate;

(I) Printing ink—Any fluid or viscous composition used in printing, impressing, or transferring an image onto a substrate;

(J) Offset—The process that transfers an image from a plate to a rubber blanket cylinder before transfer to the substrate surface to be printed;

(K) Sheet-fed—Printing presses that are fed from a stack of individual paper sheets instead of a web. Sheet-fed presses generally use coldset inks; and

(L) Web—The substrate printed in a continuous roll-fed printing process.]

[(2) Applicability.

(A) This rule shall apply to installations that operate offset lithographic printing presses including heatset web offset presses, non-heatset web offset presses (newspaper and non-newspaper), and non-heatset sheet-fed offset presses in the City of St. Louis and Jefferson, St. Charles, Franklin and St. Louis Counties.

(B) This rule shall apply only to installations described in subsection (2)(A) which have ever had the potential to emit VOCs equal to or greater than one hundred (100) tons per year. Once the installation exceeds the applicability level of this rule, it shall remain subject to this rule even if its potential emissions drop below the applicability level.

(C) This rule shall not apply to printing on fabric, metal or plastic.]

(1) Applicability.

(A) This rule shall apply to installations that operate offset lithographic or letterpress printing presses including heatset web, non-heatset web (newspaper and non-newspaper), and non-heatset sheet-fed presses in the City of St. Louis and Jefferson, St. Charles, Franklin, and St. Louis Counties.

(B) This rule shall apply only to installations described in subsection (1)(A) of this rule, with total actual emissions from lithographic and letterpress printing operations, including related cleaning activities, before consideration of controls, of more than three (3) tons per twelve (12)-month rolling period of volatile organic compounds (VOCs).

(C) This rule shall not apply to printing on fabric, metal, or plastic.

(D) Once the installation exceeds the applicability level of this rule, it shall remain subject to this rule even if its actual emissions drop below the applicability level of this rule until it can demonstrate, to the satisfaction of the director, that the total actual VOC emissions from lithographic and letterpress printing operations, including related cleaning activities, before consideration of controls, is less than three (3) tons per twelve (12)-month rolling for five (5) consecutive twelve (12)-month periods.

(E) VOC emissions calculations guidance may be found in subsection (5)(D) of this rule. As an alternative, the material use guidance in subsection (5)(E) of this rule may be used to determine applicability.

(2) Definitions. Definitions of certain terms specified in this rule may be found in 10 CSR 10-6.020.

(3) [Emission Limits.] General Provisions.

(A) Fountain Solutions. This subsection applies only to offset lithographic presses with a total fountain solution reservoir capacity of one (1) gallon or more.

[(4)]1. No owner or operator shall use or permit the use of any applicable offset lithographic printing press unless—

[1.]A. For each heatset web press/es/—

[A.](I) The fountain solution, as applied, contains one and six-tenths percent (1.6%) or less by [volume] weight of alcohol; or

[B.](II) The fountain solution, as applied, contains three percent (3.0%) or less by [volume] weight of alcohol and is refrigerated to a temperature of sixty degrees Fahrenheit (60 °F)/, or less; or

[C.]/(III) The fountain solution, as applied, contains five percent (5.0%) or less by [volume] weight of alcohol substitutes; and

[D.]/(IV) The fountain solution mixing tanks are covered for alcohol-based solutions;

[2.]/B. For each sheet-fed press[es] with a maximum sheet size greater than eleven inches by seventeen inches (11" × 17") —

[A.]/(I) The fountain solution, as applied, contains five percent (5.0%) or less by [volume] weight of alcohol; or

[B.]/(II) The fountain solution, as applied, contains eight and five-tenths percent (8.5%) or less by [volume] weight of alcohol and is refrigerated to a temperature of sixty degrees Fahrenheit (60 °F)[,] or less; or

[C.]/(III) The fountain solution, as applied, contains five percent (5.0%) or less by [volume] weight of alcohol substitutes or a combination of alcohol and alcohol substitutes; and

[D.]/(IV) The fountain solution mixing tanks containing alcohol-based solutions are covered;

[3.]/C. For each non-heatset web press[es—], the fountain solution, as applied, contains no alcohol and five percent (5.0%) or less by weight of alcohol substitutes;

[A. The fountain solution contains five percent (5.0%) or less by volume alcohol substitutes; or

B. The fountain solution contains five percent (5%) or less by volume of a combination of alcohol and alcohol substitutes; and

C. The fountain solution mixing tanks containing alcohol based solutions are covered;]

[4.]/2. Direct measurement of the alcohol content of the fountain solution [sample(s) should], as applied, shall be performed and recorded with a [modification of the EPA Method 415.1. Alternately, a sample of the fountain solution may be taken from the fountain tray or reservoir of fountain solution during use and measured with a hydrometer or refractometer. The unit shall be considered in compliance with paragraphs (3)(A)1., 2., or 3. if the refractometer or hydrometer measurement is less than or equal to the measurement obtained with a modification of EPA Method 415.1, plus ten percent (10%)] hydrometer, equipped with temperature correction or with readings adjusted for temperature, at least once per day or once per batch, whichever is longer. A standard solution shall be used to calibrate the hydrometer once per month for the type of alcohol used in the fountain;

[5.]/3. For fountain solutions, as applied, containing alcohol substitutes or nonalcohol additives and, as an alternative to paragraph (3)(A)2. of this rule, [The] the VOC content [of a fountain solution containing alcohol substitutes or nonalcohol additives] shall be established with proper record keeping [including] which may include, as necessary to determine compliance, the amount of concentrated substitute added per quantity of fountain water, date of preparation, [and] calculated VOC content of the final solution, or by measurement using U.S. Environmental Protection Agency (EPA) Method 24 analysis as outlined in paragraph (5)(C)1. of this rule. For automatic mixing systems, verification and record keeping of the mixer settings shall be performed at least once each month; and

[6.]/4. [Determination of] The fountain solution temperature for each required refrigerated fountain reservoir containing alcohol-based solutions shall be [determined] measured at least once per day or once per batch, whichever is longer, by a thermometer or other temperature detection device capable of reading to one-half degree Fahrenheit (0.5 °F).

(B) Press Cleaning. No owner or operator shall use or permit the use of any applicable offset lithographic or letterpress printing press [that uses cleanup solutions containing VOCs] unless—

1. [The cleanup solution has] All cleaning solutions, excluding a quantity not to exceed one hundred ten (110) gallons per facility in any twelve (12) consecutive months, shall have a

VOC content of [thirty percent (30%)] seventy percent (70%) or less, by weight, or a composite partial vapor pressure less than or equal to ten (10) millimeters of mercury (Hg) at twenty degrees Celsius (20 °C);

2. The [cleanup] cleaning solutions are kept in tightly-covered [tanks or containers during transport and storage; and] containers at all times except when being dispensed as needed for cleaning operations;

3. The used cleaning cloths [used] contaminated with [the cleanup] cleaning solutions are placed in tightly-closed containers [when not in use and] while awaiting off-site transportation. The cleaning cloths should be properly cleaned and disposed[. The cloths, when properly cleaned or disposed, shall be processed in such a way that as much of the solvent, as practicable, is recovered for further use or is destroyed. A cleaning and disposal plan shall be submitted to the director by the compliance deadline specified in section (5) of this rule. A copy of the plan must be kept on-site for inspection purposes.]; and

4. The VOC content or composite partial vapor pressure of the cleaning solution, as applied, shall be established with proper record keeping which may include, as necessary to determine compliance, the amount of concentrated cleaning solution added per quantity of water, date of preparation, calculated VOC content, composite partial vapor pressure of the final solution, by measurement using EPA Method 24 analysis as outlined in paragraph (5)(C)2. of this rule, or the formula in paragraph (5)(C)3. of this rule. For automatic blanket wash systems, verification and record keeping of the mixer settings shall be performed at least once each month.

(C) Heatset Web Press Emission Control Systems. This subsection applies only to heatset web lithographic and letterpress printing presses with the potential to emit (PTE) VOCs from ink oil greater than twenty-five tons per year (25 TPY) unless any such press is used for book printing or has a maximum web width of twenty-two inches (22") or less.

[(C)]/1. No owner or operator shall use or permit the use of any [heatset web-offset lithographic printing] press without a dryer [that has ever had an actual emission rate of ten (10) tons per year or more of VOCs unless] which has one hundred percent (100%) of [the dryer] its exhaust [is] ducted to a control device that is maintained and operated to achieve[s ninety], at all times while the press is operating, at least the indicated percentage [(90%) or greater,] by weight control efficiency [and the highest achievable capture efficiency reasonable].

VOC Control Device First Installed	VOC Control Percentage
Prior to September 1, 2011	90
On or after September 1, 2011	95

The dryer pressure shall be maintained below the pressure of the press room [to reduce the potential for fugitive VOC emissions from the dryer. Testing procedures for capture efficiencies shall be done as stated in 10 CSR 10-6.030(20), or by another method approved by the director.] at all times while the press is operating. Continuous dryer air flow monitoring is not required.

2. As an alternative to achieving the applicable control efficiency in paragraph (3)(C)1. of this rule, any press shall operate its control device to maintain a maximum VOC outlet concentration of twenty parts per million by volume (20 ppmv) as hexane (C₆H₁₄) on a dry basis.

(D) Use of emission control equipment under subsection (3)(C) of this rule shall require that continuous temperature monitors be installed, calibrated, maintained, and operated [and maintained] at all times while a connected printing press is operating.

Temperatures shall be measured with an accuracy of plus or minus seventy-five hundredths of one percent ($\pm 0.75\%$) measured in degrees Celsius, or two and one-half degrees Celsius (2.5°C). The operating temperatures to be used as the parameters for demonstrating continuous compliance shall be determined per subsection (5)(A) of this rule. The monitors continuously shall measure—

1. *[The exhaust gas temperature of all VOC destruction devices and the gas temperature immediately upstream and downstream of any catalytic bed with an accuracy of plus or minus seventy-five hundredths of one percent ($\pm 0.75\%$) measured in degrees Celsius, or two and one-half degrees Celsius (2.5°C)]* For catalytic oxidizers, the gas temperature upstream of the catalyst bed;

2. *[The cumulative amount of VOC recovered during a calendar month for all VOC recovery equipment attached to a dryer]* For thermal and regenerative oxidizers, the oxidizer operating temperature; and

3. Any other parameters considered necessary by the director to verify compliance and proper operation of emission control equipment.

(4) *[Recordkeeping]* Reporting and Record Keeping.

(A) All persons subject to this rule shall maintain records as required by this section sufficient to determine continuous compliance with this rule. These records shall be kept for at least *[two (2)]* five (5) years *[to be automatically extended]* or longer if enforcement action is pending. These records shall be available immediately upon request for review by the Department of Natural Resources personnel and other air pollution control agencies upon presentation of proper credentials.

(B) All persons subject to subsection (3)(C) of this rule shall maintain records for each control device sufficient to demonstrate that the control efficiency is being maintained. These records shall include, but are not limited to:

1. The temperature readings, logged at least once every fifteen (15) minutes, from the monitors required by paragraph (3)(D)1. of this rule; and

2. The operating parameters of any required control device determined from any initial or subsequent control efficiency compliance testing as outlined in subsection (5)(A) of this rule.

(C) For each *[regulated]* applicable printing press, records shall be maintained to show—

1. *Percent by volume of alcohol or alcohol substitute(s), if either is used, in fountain solution as monitored on a once-per-day basis;*

2. *Daily and monthly quantity of alcohol or alcohol substitute(s), if either is used, by volume added to the fountain solution;*

1. For each fountain solution whose VOC content is modified, the calculation or direct measurement data that indicates the resultant VOC content by weight. The calculation or measurement need only be performed once for each batch of fountain solution used except that it need not be performed at all for the dilution of a fountain solution containing alcohol substitutes purchased with less than five percent (5%) VOC content before dilution or for alcohol containing fountain solutions requiring refrigeration purchased with less than three percent (3%) or eight-and-five-tenths percent (8.5%) VOC content, for heatset web and sheet-fed presses, respectively;

3.2. For each fountain solution, a manufacturer's formulation data sheet or *[A]* Material Safety Data Sheet (MSDS) listing the physical properties of alcohol or alcohol substitute(s) such as density and percent VOC as purchased from the supplier;

4.3. Results of any testing conducted on an emission unit at a regulated facility;

5.4. Maintenance records and inspection results of any air pollution control equipment; and

6.5. The temperature of refrigerated alcohol-based fountain solution as recorded *[on a once-per-shift basis]* at least once per day or once per batch, whichever is longer.

(D) For each lithographic and letterpress printing installation subject to this rule, records shall be maintained to show—

1. *Properties of heatset inks as applied (determined by the manufacturer's formulation data), density of inks in pounds per gallon, and total VOC content in weight percent;*

2. *Quantity in pounds of heatset inks as applied to substrate on a monthly basis;*

3. *Quantity in gallons of cleanup solution used on a monthly basis; and*

4.1. A Material Safety Data Sheet or manufacturer's formulations data listing the percentage by weight of VOC in the *[cleanup]* cleaning solution~~.~~, the composite partial vapor pressure of VOC in the cleaning solution, or the necessary data to make a determination thereof as outlined in subsection (5)(C) of this rule;

2. For each cleaning solution whose VOC content is modified, the calculation that indicates the resultant VOC content by weight or composite partial vapor pressure. The calculation need only be performed once for each batch of cleaning solution used except that it need not be performed at all for the dilution of a cleaning solution which does not exceed the VOC limits of paragraph (3)(B)1. of this rule; and

3. The quantity of all cleaning solution used which does not meet the VOC limits set forth in paragraph (3)(B)1. of this rule on a twelve (12)-consecutive-month basis.

[(5) Compliance.

(A) All persons subject to the provisions of this rule shall provide to the director for approval a demonstration of final compliance with subsections (3)(A)–(C)–

1. *Upon startup of presses which are not in existence and operating on the effective date of this rule; and*

2. *Within eighteen (18) months after the effective date of this rule for any presses in existence and operating on the effective date of this rule.*

(B) All persons subject to the provisions of this rule and not in compliance with all provisions of this rule within twelve (12) months from the effective date of this rule must submit a compliance plan to the director for approval. This plan shall be received within six (6) months after the effective date of this rule. This plan shall include the following:

1. *A detailed plan of process modifications; and*

2. *A time schedule for compliance containing increments of progress, including—*

A. *Date of submittal of the source's final control plan to the appropriate air pollution control agency;*

B. *Date by which contracts for emission control systems or process modifications will be awarded; or date by which orders will be issued for the purchase of component parts to accomplish emission control or process modification;*

C. *Date of initiation of on-site construction or installation of emission control equipment or process change;*

D. *Date by which on-site construction or installation of emission control equipment or process modification is to be completed; and*

E. *Date by which final compliance is to be achieved.]*

[(6) Testing Procedures. Testing and compliance demonstrations for subsection (3)(C) of this rule shall follow the procedures contained in Environmental Protection Agency Reference Methods 25 or 25A found in 40 CFR part 60 Appendix A. Further clarification shall be provided by Environmental Protection Agency memo dated October 25,

1993, from John B. Rasnic to all Environmental Protection Agency regional offices.]

(5) Test Methods. Certain test methods mentioned in this rule may be found in 10 CSR 10-6.030. Other EPA test methods specific to this rule may be found in 40 CFR 60, Appendix A.

(A) Control Efficiency Testing. To demonstrate compliance with the emission limits of subsection (3)(C) of this rule, an initial emission test shall be performed after any required control equipment is installed. The emission limits shall not have been met until compliance has been verified through this testing. Testing shall also be required after significant modifications to any control equipment required by this rule. Significant modifications include any repairs or changes that might substantially alter or affect the overall control efficiency. This subsection outlines the methods to be used for any such testing.

1. The emission unit shall be run at typical operating conditions and flow rates compatible with scheduled production during any emission testing.

2. Capture efficiency testing for heatset dryers is not required if it is demonstrated that pressure in the dryer is negative relative to the surrounding press room and the airflow is into the dryer. This test may be performed with a differential pressure gauge or an airflow direction indicator (e.g., smoke stick or aluminum ribbons).

3. EPA Method 1 or 1A, as appropriate, shall be used to select the sampling sites.

4. EPA Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the velocity and volumetric flow rate of the exhaust stream.

5. EPA Method 3 or 3A, as appropriate, shall be used to determine the concentration of oxygen (O₂) and carbon dioxide (CO₂).

6. EPA Method 4 shall be used to determine moisture content.

7. EPA Method 18, 25, or 25A shall be used to determine the VOC concentration of the exhaust stream entering and exiting the control device, unless the alternate limit in paragraph (3)(C)2. of this rule is being used for compliance, in which case only the VOC concentration of the exit exhaust shall be determined. In cases where the anticipated outlet VOC concentration of the control device is less than fifty (50) ppmv as carbon, EPA Method 25A shall be used.

8. If EPA Method 25A is used—

A. The outlet readings from a thermal or catalytic oxidizer may be corrected by using EPA Method 18 or 25 to determine non-VOC components (methane and ethane) and subtracting these from the Method 25A result; and

B. The director may require a retest by EPA Method 18 or 25 if the average corrected outlet reading is greater than fifty (50) ppmv VOC as carbon.

9. A compliance test shall consist of up to three (3) separate runs, each lasting a minimum of sixty (60) minutes, unless the director determines that the circumstances dictate shorter sampling times.

10. EPA Method 25 specifies a minimum probe temperature of two hundred sixty-five degrees Fahrenheit (265 °F). To prevent condensation, the probe should be heated to at least the gas stream temperature, typically close to three hundred fifty degrees Fahrenheit (350 °F).

11. EPA Method 25A specifies a minimum temperature of two hundred twenty degrees Fahrenheit (220 °F) for the sampling components leading to the analyzer. To prevent condensation when testing heatset printing presses, the sampling components and flame ionization detector lock should be heated to at least the gas stream temperature, typically close to three hundred fifty degrees Fahrenheit (350 °F).

12. The oxidizer operating temperature or the temperature

of the gas upstream of the catalyst bed may be used as the operating parameter for determining continuous compliance with the emission standard of subsection (3)(C) of this rule. This temperature shall be computed as the time-weighted average of the temperature values recorded during the test. The owner or operator must maintain the oxidizer at a three (3)-hour average temperature no less than fifty degrees Fahrenheit (50 °F) below the average temperature observed during the most recent stack test to demonstrate continuous compliance.

13. Use of an adaptation to any of the methods specified in this subsection may be approved by the director on a case-by-case basis. The owner or operator shall submit sufficient documentation for the director to find that the methods specified in this subsection will yield inaccurate results and that the proposed adaptation is appropriate.

(B) Control Device Inspection. For catalytic oxidizers, the catalyst bed material shall be inspected annually for general catalyst condition and any signs of potential catalyst depletion. The owner or operator shall also collect a representative sample of the catalyst from the oxidizer, per manufacturer's recommendations, and have it tested to evaluate the catalyst's capability to continue to function at or above the required control efficiency. An evaluation of the catalyst bed material shall be conducted whenever the results of the inspection indicate signs of potential catalyst depletion or poor catalyst condition based on manufacturer's recommendations, but not less than once per year.

(C) VOC Content Testing.

1. Fountain solutions. Compliance with the VOC content limits for fountain solutions established in subsection (3)(A) of this rule shall be determined by one (1) of the following:

A. If fountain solution is diluted prior to use, a calculation that combines EPA Method 24 analytical data for the concentrated materials used to prepare the fountain solution and the proportions in which they are mixed to make the as-applied material. The analysis of the concentrated materials may be performed by the supplier of those materials. Owners or operators may use formulation information provided with the concentrated materials used to prepare the fountain solution, such as the container label, the product data sheet, or the MSDS sheet to document the VOC content of the concentrated material;

B. If fountain solution is not diluted prior to use, MSDS or manufacturer's formulation data sheet may be used; or

C. EPA Method 24 of a sample of fountain solution, as applied.

2. Cleaning solutions. The VOC content or VOC composite partial vapor pressure of cleaning solutions shall be determined by one (1) of the following:

A. Analysis by EPA Method 24 for VOC content or by an appropriate method for VOC composite partial vapor pressure of a sample of the cleaning solution. See formula in paragraph (5)(C)3. of this rule. The analysis may be performed by the supplier of those materials; or

B. Calculation for VOC content that combines EPA Method 24 analytical data for the concentrated materials used to prepare the cleaning solution and the proportions in which they are mixed to make the cleaning solution as applied. Owners or operators may use formulation information provided with the concentrated materials used to prepare the cleaning solution, such as the container label, the product data sheet, or the MSDS sheet to document the VOC content of the concentrated material;

C. If cleaning solution is not diluted prior to use, MSDS or manufacturer's formulation data sheet may be used.

3. Calculations. The VOC composite partial vapor pressure is the sum of the partial pressure of the compounds defined as VOCs. VOC composite partial vapor pressure is calculated as follows:

$$PP_c = \sum_{i=1}^n \frac{(W_i)(VP_i)/MW_i}{\frac{W_w}{MW_w} + \frac{W_c}{MW_c} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

Where:

- W_i = Weight of the i^{th} VOC compound, in grams
 W_w = Weight of water, in grams
 W_c = Weight of exempt compound, in grams
 MW_i = Molecular weight of the i^{th} VOC compound, in g/g-mole
 MW_w = Molecular weight of water, in g/g-mole
 MW_c = Molecular weight of exempt compound, in g/g-mole
 n = Number of VOC compounds
 PP_c = VOC composite partial vapor pressure at 20 °C (68 °F), in mmHg
 VP_i = Vapor pressure of the i^{th} VOC compound at 20 °C (68 °F), in mmHg

(D) VOC Emission Calculations, Retention Factors, and Capture Efficiencies. For purposes of determining VOC emissions from lithographic and letterpress printing operations, the following retention factors and capture efficiencies and formula shall be used:

1. A portion of the VOC contained in inks and cleaning solution is retained in the printed web or in the shop towels used for cleaning. The following retention factors shall be used:

A. For heatset inks printed on absorptive substrates, a twenty percent (20%) VOC retention factor shall be used meaning eighty percent (80%) of the VOC in the ink is emitted during the printing process and is available for capture and control by an add-on pollution control device;

B. For sheet-fed and non-heatset web inks printed on absorptive substrates, a ninety-five percent (95%) VOC retention factor shall be used, meaning five percent (5%) of the VOC in the ink is emitted during the printing process; and

C. For cleaning solution VOC emissions from shop towels using cleaning solutions with a VOC composite vapor pressure of no more than ten (10) mmHg at twenty degrees Celsius (20 °C) (sixty-eight degrees Fahrenheit (68 °F)), a fifty percent (50%) VOC retention factor shall be used if the contaminated shop towels are kept in closed containers;

2. A portion of the VOC contained in inks, fountain solutions, and automatic blanket washes on heatset presses is captured in the press dryer for control by add-on pollution control devices. The following capture factors shall be used:

A. For inks, a one hundred percent (100%) VOC capture efficiency shall be used. All the VOC in the ink that is not retained is assumed to be volatilized in the press dryer if it is demonstrated that the pressure in the dryer is negative relative to the surrounding press room and the airflow is into the dryer;

B. For fountain solutions containing alcohol substitutes, a seventy percent (70%) VOC capture factor shall be used; and

C. For automatic blanket wash solutions with a VOC composite partial vapor pressure of no more than ten (10) mmHg at twenty degrees Celsius (20 °C) (sixty-eight degrees Fahrenheit (68 °F)), a forty percent (40%) VOC capture factor shall be used; and

3. For calculating VOC emissions, the following equations shall be used:

A. For total VOC emissions from an offset lithographic printing facility, including all related cleaning activities—

$$VOC_{TOT} = \sum_{i=1}^m W_{INK_i} * VOC_{INK_i} * \left(1 - \frac{RF_{INK_i}}{100}\right) + \sum_{i=1}^n VOL_{FS_i} * VOC_{FS_i} + \sum_{i=1}^p VOL_{CS_i} * VOC_{CS_i} * \left(1 - \frac{RF_{CS_i}}{100}\right)$$

Where:

- VOC_{TOT} = Total VOC emissions, expressed as pounds
 W_{INK} = Weight of ink used, expressed as pounds
 VOC_{INK} = Weight fraction of VOC in the ink
 RF_{INK} = Retention factor of the ink, expressed as a percent
 m = Number of inks
 VOL_{FS} = Volume of fountain solution used, expressed as gallons
 VOC_{FS} = VOC content of fountain solution, expressed as pounds per gallon
 n = Number of fountain solutions
 VOL_{CS} = Volume of cleaning solution used, expressed as gallons
 VOC_{CS} = VOC content of cleaning solution, expressed as pounds per gallon
 RF_{CS} = Retention factor of the cleaning solution, expressed as a percent
 p = Number of cleaning solutions

and

B. For VOC ink oil emissions from a heatset web lithographic or letterpress printing press—

$$VOC_{TOT} = \sum_{i=1}^n W_{INK_i} * VOC_{INK_i} * \left(1 - \frac{RF_{INK_i}}{100}\right)$$

Where:

- VOC_{TOT} = Total VOC emissions, expressed as pounds
 W_{INK} = Weight of ink used, expressed as pounds
 VOC_{INK} = Weight fraction of VOC in the ink
 RF_{INK} = Retention factor of the ink, expressed as a percent
 n = Number of inks

(E) Material Use Guidance: Applicability Determination. Based on EPA's *Potential to Emit (PTE) Guidance for Specific Source Categories* (April 14, 1998) and the equations of paragraph (5)(D)3. of this rule, the methods in this subsection may be used for determining if a facility or press meets the corresponding applicability thresholds.

1. For determining if a facility meets the applicability limits of subsection (1)(B) of this rule, the material use thresholds are as follows:

Type of Printing Operation	12-Month Rolling Material Use Threshold
Sheet-fed	768 gallons of cleaning solvent and fountain solution additives
Non-heatset Web	768 gallons of cleaning solvent and fountain solution additives
Heatset Web	5,400 pounds of ink, cleaning solvent, and fountain solution additives

2. For determining if a web heatset press is subject to subsection (3)(C) of this rule, the material use thresholds are as follows:

Type of Printing Press	Annual Material Use Threshold
Heatset Web	55,800 pounds of ink

AUTHORITY: section 643.050, RSMo [1994] 2000. Original rule filed Oct. 7, 1994, effective May 28, 1995. Amended: Filed Nov. 30, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will cost private entities \$6,976,330 in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed amendment will begin at 9:00 a.m., February 3, 2011. The public hearing will be held at the Doubletree Hotel and Conference Center, Ballrooms C, D, and E, 16625 Swingley Ridge Road, Chesterfield, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., February 10, 2011. Written comments shall be sent to Chief, Air Quality Planning Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

**FISCAL NOTE
PRIVATE COST**

- I. Department Title:** 10 – Department of Natural Resources
Division Title: 10 – Air Conservation Commission
Chapter Title: 5 – Air Quality Standards and Air Pollution Control Rules Specific to the St. Louis Metropolitan Area

Rule Number and Title:	10 CSR 10-5.442 Control of Emissions from Lithographic Printing Operations
Type of Rulemaking:	Amendment to Existing Rule

II. SUMMARY OF FISCAL IMPACT

Estimate of the number of entities by class which would likely be affected by the adoption of the rule:	Classification by types of the business entities which would likely be affected:	Estimate in the aggregate as to the cost of compliance with the rule by the affected entities:
35	Offset Lithography North American Industry Classification System code (NAICS): 323110 Standard Industry Classification code (SIC): 2752 Source Classification Codes (SCC): 40500401, 40500411, 40500412, 40500415, 40500416, 40500418	\$6,840,350
2	Letterpress Printing NAICS: 323119 SIC: 2751 SCC: 40500201, 40500202, 40500203, 40500211, 40500212, 40500215	\$135,980
		\$6,976,330

II. WORKSHEET**Offset Lithographic**

Proposed Rule Provisions	Estimated # of applicable facilities	Average Annual Cost (per facility)	Total Annual Cost of compliance	Total Cost of compliance over life of rule
VOC Emission Controls (Device, Capital recovery, operation & maintenance)	2	\$223,035	\$446,070	\$4,460,700
Fountain Solutions (See Assumption 9)	35	\$0	\$0	\$0
Cleaning	35	\$6799	\$237,965	\$2,379,650
Total		\$229,834	\$684,035	\$6,840,350

Letterpress Printing

Proposed Rule Provision incurring compliance costs	Estimated # of applicable facilities	Average Annual Cost (per facility)	Total Annual Cost of compliance	Total Cost of compliance over life of rule
VOC Emission Controls (Device, Capital recovery, operation & maintenance)	0	\$223,035	\$0	\$0
Cleaning	2	\$6,799	\$13,598	\$135,980
Total		\$6,799	\$13,598	\$135,980

IV. ASSUMPTIONS

1. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be 10 years although the duration of the rule is indefinite. If the life of the rule extends beyond ten years, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.
2. Since this rule amendment is substantially similar to the emission limits and techniques presented in the U.S. Environmental Protection Agency's (EPA) *Control Techniques Guidelines (CTG) for Offset Lithographic Printing and Letterpress Printing* (EPA-453/R-06-002, September 2006), this private entity fiscal cost analysis is based on the CTG cost estimates outlined in Appendix D of that document.
3. All costs are annualized. The capital recovery of the initial equipment and installation costs is part of the annual cost and is based on a 10-percent interest rate and a 10-year life for the equipment.
4. All figures are in 2005 dollars matching EPA's cost analysis.
5. EPA used a model plant analysis that estimated that 148 facilities nationally will have to add heatset dryer Volatile Organic Compound (VOC) emission controls costing \$33 million annually. These 148 plants were distributed among four categories. The cost to install controls, based on the average of all the categories, is \$223,035 per plant per year.
6. For the lithographic cleaning provisions, EPA estimated that there are 2698 applicable facilities nationwide, divided into 16 categories, in nonattainment areas that were not previously meeting the cleaning provisions. Nationally, the annual cost of compliance with the cleaning provisions was estimated to be \$18 million. From this, the average annual cost per facility is \$6799.
7. 2 heatset lithographic facilities will have presses requiring the installation of VOC control devices.
8. 35 lithographic facilities will now have to comply with the low VOC solvent cleaning and fountain solution provisions.
9. For the fountain solution provisions requiring a reduction in alcohol use or conversion to alcohol substitutes, the net cost is \$0 because any savings are offset by the installation and maintenance of conversion equipment to include new rubber rollers and any necessary water pretreatment conditioners.

10. 2 letterpress operations will have to comply with the cleaning provisions but no letterpress operations will have to install heatset dryer controls.
11. Costs per facility are the same for letterpress printing as for offset lithography, except that there are no fountain solutions in letterpress printing.
12. No additional recordkeeping costs will be incurred. Affected facilities are either already maintaining appropriate records or additional recordkeeping costs are negligible.

Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 5—Air Quality Standards and Air Pollution
Control Rules Specific to the St. Louis Metropolitan
Area

PROPOSED AMENDMENT

10 CSR 10-5.455 Control of Emissions from Industrial Solvent [Cleanup] Cleaning Operations. The commission proposes to amend the rule title, rule purpose, and section (3) and renumber and amend sections (1), (2), (4), and (5) of the rule. If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule that is in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/reg/index.html.

PURPOSE: This rule will reduce the volatile organic compounds (VOC) emissions from industrial cleaning operations that use organic solvents. This amendment will lower the allowable emissions threshold for VOCs released per day from the use, storage, and disposal of industrial cleaning solvents. It will also add requirements for facilities that have VOC emission levels that exceed the threshold, including placing limitations on the VOC content of the cleaning materials. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is the publication by the U.S. Environmental Protection Agency 2006 Control Techniques Guidelines for industrial cleaning operations and Clean Air Act section 182(b)(2).

PURPOSE: This rule will reduce [solvent emissions from solvent cleanup operations] the volatile organic compounds emissions from industrial cleaning operations that use organic solvents.

[(1) Definitions of certain terms specified in this rule may be found in 10 CSR 10-6.020.]

[(2)](1) Applicability.

(A) This rule shall apply throughout St. Louis City and the Counties of Jefferson, St. Charles, Franklin, and St. Louis.

(B) This rule shall apply to any person who performs or allows the performance of any cleaning operation involving the use of *[a volatile] organic [compound (VOC)]* solvents or solvent solutions. **Except as provided in subsections (1)(C) through (1)(E) of this rule, the *[The]* provisions of this rule shall *[not]* apply to any stationary source *[at which cleaning solvent VOCs are emitted at less than five hundred (500) pounds per day.]* that emits at least three (3) tons per twelve (12)-month rolling period or more of volatile organic compounds (VOCs) from cleaning operations at the source, in the absence of air pollution control equipment, and stores and/or disposes of these solvent materials.**

(C) The following solvent cleaning operations are not subject to the provisions of this rule:

1. Cold cleaner;
2. Open top vapor degreaser;
3. Conveyorized cold cleaner;
4. Conveyorized vapor degreaser;
5. Stripping of cured coatings, cured ink, or cured adhesives;
6. Cleaning operation in printing pre-press or graphic arts pre-press area, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning;

[5.]7. Nonmanufacturing area cleaning. Nonmanufacturing areas include cafeterias, laboratories, pilot facilities, restrooms, janitorial cleaning, including graffiti removal, and office buildings; and

[6. Cleaning operations for which there has been made a best available control technology (BACT), reasonably available control technology (RACT), or lowest achievable emission rate (LAER) determination; and]

*[7.]8. Cleaning operations *[which are subject to the Aerospace National Emission Standards for Hazardous Air Pollutants Standards (NESHAP) source category.]* for emission units within the following source categories listed for regulation under section 183(e) of the Clean Air Act:*

- A. Aerospace coatings;
- B. Auto and light duty truck assembly coatings;
- C. Fiberglass boat manufacturing materials;
- D. Flat wood paneling coatings;
- E. Flexible packaging printing materials;
- F. Large appliance coatings;
- G. Letterpress printing materials;
- H. Lithographic printing materials;
- I. Metal furniture coatings;
- J. Miscellaneous industrial adhesives;
- K. Miscellaneous metals parts coatings;
- L. Paper, film, and foil coatings;
- M. Plastic parts coatings;
- N. Shipbuilding and repair coatings; and
- O. Wood furniture coatings.

(D) The following solvent cleaning operations are exempt from the VOC-content limitations specified in subsection (3)(A) of this rule:

1. Cleaning of solar cells, laser hardware, scientific instruments, and high-precision optics;
2. Cleaning conducted as part of the following: performance laboratory tests on coatings, adhesives, or inks; research and development programs; and laboratory tests in quality assurance laboratories;
3. Cleaning of paper-based gaskets and clutch assemblies where rubber is bonded to metal by means of an adhesive;
4. Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics;
5. Cleaning at medical device and pharmaceutical facilities using up to one and one-half (1.5) gallons per day of solvents;
6. Cleaning of adhesive application equipment used for thin metal laminating;
7. Cleaning of electronic or electrical cables;
8. Touch-up cleaning performed on printed circuit boards where surface mounted devices have already been attached;
9. Cleaning of coating and adhesive application processes utilized to manufacture transdermal drug delivery product using less than three (3) gallons per day of ethyl acetate;
10. Cleaning of application equipment used to apply coating on satellites and radiation effect coatings;
11. Cleaning of application equipment used to apply solvent-borne fluoropolymer coatings;
12. Cleaning of ultraviolet or electron beam adhesive application;
13. Cleaning of sterilization indicating ink application equipment if the facility uses less than one and one-half (1.5) gallons per day of solvents for such cleaning;
14. Cleaning of metering rollers, dampening rollers, and printing plates;
15. Cleaning of numismatic dies; and
16. Cleaning of operations associated with digital printing.

(E) Cleaning with aerosol products shall be exempt from the requirements of subsection (3)(A) of this rule if the facility uses one and one-quarter (1.25) gallons (one hundred sixty (160) fluid ounces) or less of the aerosol products per day.

(2) Definitions. Definitions of certain terms specified in this rule may be found in 10 CSR 10-6.020.

(3) General Provisions. *[Any person performing any industrial cleaning operation, not excluded in subsection (2)(B) or (C), involving the use of a VOC solvent or solvent solution shall demonstrate a thirty percent (30%) reduction in plant-wide industrial VOC cleaning solvent emissions as described in section (4) of this rule by May 31, 1996.]*

(A) VOC-Content Limitations. No owner or operator of a source subject to this rule shall perform any cleaning operation subject to this rule unless the owner or operator meets the requirements in paragraph (3)(A)1., (3)(A)2., or (3)(A)3. of this rule—

1. The VOC content of the as-used cleaning solutions (minus water and exempt compounds) shall not exceed the following emissions limitations:

A. Product cleaning during manufacturing process or surface preparation for coating, adhesive, or ink application.

Solvent Cleaning Operation	VOC Emission Limit	
	Kilograms per liter	Pounds per gallon
Electrical apparatus components and electronic components	0.10	0.83
Medical devices and pharmaceuticals	0.80	6.70

B. Repair and maintenance cleaning.

Solvent Cleaning Operation	VOC Emission Limit	
	Kilograms per liter	Pounds per gallon
Electrical apparatus components and electronic components	0.10	0.83
Medical devices and pharmaceuticals: tools, equipment, and machinery	0.80	6.70
Medical devices and pharmaceuticals: general work surfaces	0.60	5.00

C. Cleaning of ink application equipment.

Solvent Cleaning Operation	VOC Emission Limit	
	Kilograms per liter	Pounds per gallon
Rotogravure printing that does not print flexible packaging	0.10	0.83
Screen printing	0.50	4.20
Ultraviolet ink and electro beam ink application equipment, except screen printing	0.65	5.40
Flexographic printing that does not print flexible packaging	0.10	0.83

D. All other solvent cleaning operations.

Solvent Cleaning Operation	VOC Emission Limit	
	Kilograms per liter	Pounds per gallon
All other solvent cleaning operations not subject to specific limitations in paragraphs (3)(A)1., (3)(A)2., or (3)(A)3. of this rule	0.05	0.42

2. The composite vapor pressure of each as-used cleaning solution used does not exceed eight millimeters of Mercury (8.0 mmHg) measured at twenty degrees Celcius (20 °C) (sixty-eight degrees Fahrenheit (68 °F)); or

3. An oxidizer or carbon adsorber is installed and operated that reduces VOC emissions from the subject cleaning operation by at least eighty-five percent (85%) overall. The owner or operator may use an emission control system other than an after-burner or carbon adsorber if such device reduces VOC emission from the subject cleaning operation by at least eighty-five percent (85%) by mass, the owner or operator submits a plan to the director detailing appropriate monitoring devices, test methods, record-keeping requirements, and operation parameters for such a control device, and such a plan is approved by the director and the U.S. Environmental Protection Agency (EPA) within federally-enforceable permit conditions.

(B) Cleaning Devices and Methods. The owner or operator of a facility that is subject to this rule shall employ one (1) or more of the following cleaning devices and methods:

1. Wipe cleaning;

2. Closed containers or hand-held spray bottles from which solvents are applied;

3. Cleaning equipment which has a solvent container that can be, and is, closed during cleaning operations, except when depositing and removing objects to be cleaned, and is closed during non-operation with the exception of maintenance and repair to the cleaning equipment itself; and

4. Remote reservoir cleaner, if the operator of the cleaner complies with all of the following:

A. Prevents solvent vapors from escaping from the solvent container by using such devices as a cover or a valve when the remote reservoir is not being used, cleaned, or repaired;

B. Directs solvent flow in a manner that will prevent liquid solvent from splashing outside of the remote reservoir cleaner;

C. Does not clean porous or absorbent materials, such as cloth, leather, wood, or rope;

D. Uses only solvent containers free of all liquid leaks. Auxiliary equipment, such as pumps, pipelines, or flanges, shall not have any liquid leaks, visible tears, or cracks. Any liquid leak, visible tear, or crack detected shall be repaired within one (1) calendar day, or the leaking section of the remote reservoir cold cleaner shall be drained of all solvent and shut down until it is repaired or replaced;

E. Non-atomized solvent flow method where the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; and

F. Solvent flushing method where the cleaning solvent is discharged into a container which is closed except for solvent collection openings, and, if necessary, other openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure or by pumping.

(C) **Operating Requirements.** The owner or operator of a source subject to the requirements of this section shall comply with the following for each subject cleaning operation:

1. Cover all open containers and properly cover and store applicators used to apply cleaning solvents;
2. Dispose of all used cleaning solutions, cleaning towels, and applicators used to apply cleaning solvents in closed containers that are nonleaking and nonabsorbent;
3. Minimize air circulation around the cleaning operation; and
4. Utilize equipment practices that minimize emissions.

(D) **Control Device Inspection.** For catalytic oxidizers, the catalyst bed material shall be inspected annually for general catalyst condition and any signs of potential catalyst depletion. The owner or operator shall also collect a representative sample of the catalyst from the oxidizer, per manufacturer's recommendations, and have it tested to evaluate the catalyst's capability to continue to function at or above the required control efficiency. An evaluation of the catalyst bed material shall be conducted whenever the results of the inspection indicate signs of potential catalyst depletion or poor catalyst condition based on manufacturer's recommendations but not less than once per year.

[(4) Solvent Emission Reduction. The following provisions apply to any stationary source subject to section (3) of this rule:

(A) A thirty percent (30%) emission reduction shall be based on emissions in 1990 and in 1995. If the owner/operator demonstrates that either 1990 or 1995 is not a representative production year, then a demonstration shall be made to the agency that another year is more representative for purposes of comparison or for prorating cleaning solvent usage. The following applicable documentation of actions and associated emission reductions shall be sent to the department for approval by March 1, 1996:

- 1. Changes in cleaning solvents used;*
- 2. Changes in work practices; and*
- 3. Changes in equipment or processes; and*

(B) The changes described in subsection (4)(A) of this rule shall remain in effect until other changes resulting in greater, or equal, emission reductions from the cleaning operations are implemented.]

[(5) Recordkeeping. The person responsible for industrial cleaning operations at an affected facility seeking to comply with section (3) of this rule shall keep records of information sufficient for the calculation of emissions from each Unit Operation System (UOS) from the use of industrial cleaning solvents. A UOS consists of an industrial cleaning operation around which all organic solvent usage disposal, and fugitive losses may be calculated using a simple mass balance equation. As an aid to compliance with this section, records for industrial cleaning UOSs may include one (1) or more of the following:

(A) Engineering drawings or sketches of all UOSs used to define industrial cleaning operations within the facility, including a system boundary, organic solvent input(s), organic solvent output(s), and organic solvent evaporative loss points. These drawings shall include each of the following:

- 1. Labeled boxes within the system boundary which describe all components of the UOS, including any virgin solvent containers, solvent applicators, used solvent containers, and the surface being cleaned;*
- 2. Numbered or lettered arrows depicting liquid and/or evaporative solvent flow, accurate with respect to relative mass flow rates in and out of the system boundary; and*
- 3. Arrows depicting all organic solvent pathways within the system boundary;*

(B) One (1) accurate mass balance equation for each UOS depicted in subsection (5)(A) of this rule. Each equation shall have variables consistent with those used to define the corresponding UOS and shall be solved for total VOC emissions for the UOS; and

(C) Any assumptions or approximations made in defining the UOSs.]

(4) **Reporting and Record Keeping.** All owners and operators subject to this rule shall maintain records as required by this section sufficient to determine continuous compliance with this rule. These records shall be kept for at least five (5) years to be automatically extended if enforcement action is pending. These records shall be made available immediately upon request for review by the Department of Natural Resources' personnel and other air pollution control agencies upon presentation of proper credentials.

(A) The owner or operator of a facility that includes an industrial solvent cleaning operation shall keep records detailing specific VOC uses as necessary for the director to determine monthly compliance. All facility records must include the following:

1. A list of all solvents currently used and/or stored at the site. The list shall include the following information:

- A. Cleaning solvent type by name/code/manufacturer;
- B. The actual VOC content of the cleaning solvents, based upon EPA Method 24, of each cleaning material, in pounds per gallon of material, as applied or the VOC composite partial vapor pressures of the solvents or solvent solutions used in the industrial cleaning operations. This calculation need only be performed once for each batch of cleaning solution used; and
- C. The actual mixing ratio for the cleaning solvent as applied; and

2. Records of usage including the following information:

- A. Monthly records of total applied volume in gallons for each cleaning solvent used;
- B. Monthly records of solvent cleaning activity associated with each solvent used;
- C. Monthly records of total volume of aerosol products in ounces used; and
- D. The total monthly VOC emissions (summation of gallons \times VOC content (in pounds per gallon)).

(B) If a facility includes automatic equipment, records shall also include, as applicable, the following:

1. For a source with automatic equipment that prepares each batch of cleaning solution(s) on site, records for each batch shall include:

- A. The name and identification of each cleaning solution;
- B. The VOC content of each cleaning solvent in the cleaning solution;
- C. Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and description of changes to the proportion of cleaning solvent and water (or other non-VOC);
- D. The proportion of each cleaning solvent and water (or other non-VOC) used to prepare the as-used cleaning solution;
- E. The VOC content of the as-used cleaning solution, with the supporting calculations; and
- F. A calibration log for the automatic equipment, detailing periodic checks;

2. For a source with automatic equipment that does not prepare cleaning solution(s) on site, records for each batch of cleaning solution shall include:

- A. The name and identification of each cleaning solution;
- B. Date, time of preparation, and each subsequent modification of the batch;
- C. The VOC content of each cleaning solvent in the cleaning solution;

D. The total amount of each cleaning solvent and water (or other non-VOC) used to prepare the as-used cleaning solution; and

E. The VOC content of the as-used cleaning solution, with supporting calculations; and

3. For cleaning solutions that are not prepared at the site, but are used as-purchased, the manufacturer's specifications for VOC content may be used if such manufacturer's specifications are based on the results of tests of the VOC content in accordance with EPA Method 24.

(C) Any owner or operator using an emission control device pursuant to this rule shall maintain records, on a daily basis, of key system operating parameters for emission control equipment, including, but not limited to:

1. Identification of the type of emissions control system used;
2. Hours of operation;
3. Routine and non-routine maintenance, including dates and duration of any outages;
4. Records of test reports conducted;
5. If an owner or operator of a solvent cleaning operation employs a thermal oxidizer or catalytic oxidizer to achieve and maintain compliance, the owner or operator shall comply with the following requirements:

A. Continuous temperature monitoring and continuous temperature recording equipment shall be installed and operated to accurately measure the operating temperature(s) for the control device; and

B. The following information shall be collected and recorded each day of operation of the solvent cleaning operation and the control device, and the information shall be maintained at the facility for a period of five (5) years:

(I) A log or record of the operating time for the control device, monitoring equipment, and the associated solvent cleaning operation;

(II) For thermal oxidizers, all three (3)-hour periods of operation during which the average combustion temperature was more than fifty degrees Fahrenheit (50 °F) below the average combustion temperature during the most recent emission test that demonstrated that the solvent cleaning operation was in compliance; and

(III) For catalytic oxidizers, all three (3)-hour periods of operation during which the average temperature of the dryer exhaust gases immediately before the catalyst bed was more than fifty degrees Fahrenheit (50 °F) below the average temperature of the dryer exhaust gases during the most recent emission test that demonstrated that the solvent cleaning operation was in compliance, and all three (3)-hour periods during which the average temperature difference across the catalyst bed was less than eighty percent (80%) of the average temperature difference during the most recent emission test that demonstrated that the solvent cleaning operation was in compliance; and

6. If an owner or operator of a solvent cleaning operation employs a carbon adsorption system to achieve and maintain compliance, the owner or operator shall comply with the following requirements:

A. Monitoring and recording equipment that records all of the following shall be installed and operated for the carbon adsorption system:

(I) A continuous emission monitoring and recording system that is capable of accurately measuring and recording the concentration of organic compounds in the exhaust gases from the carbon adsorption system;

(II) Monitoring and recording equipment that are capable of accurately measuring and recording the total mass steam flow rate for each regeneration cycle of each carbon bed; and

(III) Monitoring and recording equipment that are capable of accurately measuring and recording the temperature

of each carbon bed after regeneration (and after completion of any cooling cycle(s)); and

B. The following information shall be collected and recorded each day of operation of the solvent cleaning operation and the carbon adsorption system:

(I) A log or record of the operating time for the carbon adsorption system, monitoring equipment, and the associated solvent cleaning operation;

(II) For a carbon adsorption system that employs a continuous emission monitoring and recording system to measure and record the concentration of organic compounds in the exhaust gases, all three (3)-hour periods of operation during which the average concentration level or reading in the exhaust gases is more than twenty percent (20%) greater than the exhaust gas organic compound concentration level or reading measured by the most recent performance test that demonstrated that the solvent cleaning operation was in compliance;

(III) For a carbon adsorption system that employs monitoring and recording equipment to measure and record the total mass steam flow rate for each regeneration cycle of each carbon bed, all carbon bed regeneration cycles during which the total mass steam flow rate was more than ten percent (10%) below the total mass steam flow rate during the most recent performance test that demonstrated that the solvent cleaning operation was in compliance; and

(IV) For a carbon adsorption system that employs monitoring and recording equipment to measure and record the temperature of each carbon bed after regeneration (and after completion of any cooling cycle(s)) was more than ten percent (10%) greater than the carbon bed temperature during the most recent performance test that demonstrated that the solvent cleaning operation was in compliance.

(5) Test Methods. Certain test methods mentioned in this rule may be found in 10 CSR 10-6.030. Other EPA test methods specific to this rule may be found in 40 CFR 60, Appendix A.

(A) Control Efficiency Testing. To demonstrate compliance with the emission limits of subsection (3)(C) of this rule, an initial emission test shall be performed after any required control equipment is installed. The emission limits shall not have been met until compliance has been verified through this testing. Testing shall also be required after significant modifications to any control equipment required by this rule. Significant modifications include any repairs or changes that might substantially alter or affect the overall control efficiency. This subsection outlines the methods to be used for any such testing.

1. The emission unit shall be run at typical operating conditions and flow rates compatible with scheduled production during any emission testing.

2. EPA Method 1 or 1A, as appropriate, shall be used to select the sampling sites.

3. EPA Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the velocity and volumetric flow rate of the exhaust stream.

4. EPA Method 3 or 3A, as appropriate, shall be used to determine the concentration of Oxygen (O₂) and Carbon Dioxide (CO₂).

5. EPA Method 4 shall be used to determine moisture content.

6. EPA Method 18, 25, or 25A shall be used to determine the VOC concentration of the exhaust stream entering and exiting the control device, unless the alternate limit in paragraph (3)(C)2. of this rule is being used for compliance, in which case only the VOC concentration of the exit exhaust shall be determined. In cases where the anticipated outlet VOC concentration of the control device is less than fifty parts per million by volume (50 ppmv) as carbon, EPA Method 25A shall be used.

7. If EPA Method 25A is used—

A. The outlet readings from a thermal or catalytic oxidizer may be corrected by using EPA Method 18 or 25 to determine non-VOC components (methane and ethane) and subtracting these from the Method 25A result; and

B. The director may require a retest by EPA Method 18 or 25 if the average corrected outlet reading is greater than fifty (50) ppmv VOC as carbon.

8. A compliance test shall consist of up to three (3) separate runs, each lasting a minimum of sixty (60) minutes unless the director determines that the circumstances dictate shorter sampling times.

9. EPA Method 25 specifies a minimum probe temperature of two hundred sixty-five degrees Fahrenheit (265 °F). To prevent condensation, the probe should be heated to at least the gas stream temperature, typically close to three hundred fifty degrees Fahrenheit (350 °F).

10. EPA Method 25A specifies a minimum temperature of two hundred twenty degrees Fahrenheit (220 °F) for the sampling components leading to the analyzer. To prevent condensation when testing heatset printing presses, the sampling components and flame ionization detector lock should be heated to at least the gas stream temperature, typically close to three hundred fifty degrees Fahrenheit (350 °F).

11. The oxidizer operating temperature or the temperature of the gas upstream of the catalyst bed may be used as the operating parameter for determining continuous compliance with the emission standard of subsection (3)(C) of this rule. This temperature shall be computed as the time-weighted average of the temperature values recorded during the test. The owner or operator must maintain the oxidizer at a three (3)-hour average temperature no less than fifty degrees Fahrenheit (50 °F) below the average temperature observed during the most recent stack test to demonstrate continuous compliance.

12. Use of an adaptation to any of the methods specified in this subsection may be approved by the director on a case-by-case basis. The owner or operator shall submit sufficient documentation for the director to find that the methods specified in this subsection will yield inaccurate results and that the proposed adaptation is appropriate.

13. To determine capture efficiency, use the procedure in 10 CSR 10-6.030(20).

(B) VOC Content Testing for Cleaning Solutions. The VOC content or VOC composite partial vapor pressure of cleaning solutions shall be determined by one (1) of the following:

1. Analysis by EPA Method 24 for VOC content or by an appropriate method for VOC composite partial vapor pressure of a sample of the cleaning solution. The analysis may be performed by the supplier of those materials;

2. Calculation for VOC content that combines EPA Method 24 analytical data for the concentrated materials used to prepare the cleaning solution and the proportions in which they are mixed to make the cleaning solution as applied. Owners or operators may use formulation information provided with the concentrated materials used to prepare the cleaning solution, such as the container label, the product data sheet, or the Material Safety Data Sheet (MSDS) to document the VOC content of the concentrated material; or

3. If cleaning is not diluted prior to use, MSDS or manufacturer's formulation data sheet may be used.

AUTHORITY: section 643.050, RSMo Supp. [1995] 2010. Original rule filed Oct. 7, 1994, effective May 28, 1995. Amended: Filed July 15, 1996, effective Feb. 28, 1997. Amended: Filed Nov. 30, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed amendment will begin at 9:00 a.m., February 3, 2011. The public hearing will be held at the Doubletree Hotel and Conference Center, Ballrooms C, D, and E, 16625 Swingley Ridge Road, Chesterfield, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., February 10, 2011. Written comments shall be sent to Chief, Air Quality Planning Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

**Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 6—Air Quality Standards, Definitions, Sampling
and Reference Methods and Air Pollution Control
Regulations for the Entire State of Missouri**

PROPOSED AMENDMENT

10 CSR 10-6.020 Definitions and Common Reference Tables. The commission proposes to amend subsections (2)(A)–(2)(J) and (2)(L)–(2)(W). If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule that is in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/regs/index.html.

PURPOSE: This rule defines key words and expressions used in Chapters 1 through 6 and provides common reference tables. This amendment will add all of the definitions currently found in individual Division 10 air rules into the general definitions rule unless a specific reason exists for a definition to be unique to a specific rule. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is public hearing testimony.

PURPOSE: This rule defines key words and expressions used in [c]Chapters 1 through 6 and provides common reference tables.

(2) Definitions.

(A) All terms beginning with "A."

1. Abatement project designer—An individual who designs or plans Asbestos Hazard Emergency Response Act (AHERA) asbestos abatement.

2. Account certificate of representation—The completed and signed submission for certifying the designation of a nitrogen oxides (NO_x) authorized account representative for an affected unit or a group of identified affected units who is authorized to represent the owners or operators of such unit(s) and of the affected units at such source(s) with regard to matters under an NO_x trading program.

3. Account holder—Any person that chooses to participate in the program by generating, buying, selling, or trading emission reduction credits (ERCs).

4. Account number—The identification number given to each NO_x allowance tracking system account.

5. Acid rain emissions limitation—As defined in 40 CFR 72.2, a limitation on emissions of sulfur dioxide or nitrogen

oxides under the acid rain program under Title IV of the Clean Air Act.

6. Acrylonitrile-butadiene-styrene (ABS) plastic solvent welding—A process to weld ABS pipe.

[2./7. Act—The Clean Air Act, 42 U.S.C. 7401. References to the word Title pertain to the titles of the Clean Air Act Amendments of 1990, P.L. 101-595.

8. Active collection system—A gas collection system that uses gas mover equipment.

9. Active landfill—A landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

[3./10. Actual emissions—The actual rate of emissions of a pollutant from a source operation is determined as follows:

A. Actual emissions as of a particular date shall equal the average rate, in tons per year, at which the source operation or installation actually emitted the pollutant during the previous two (2)-year period and which represents normal operation. A different time period for averaging may be used if the director determines it to be more representative. Actual emissions shall be calculated using actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period;

B. The director may presume that source-specific allowable emissions for a source operation or installation are equivalent to the actual emissions of the source operation or installation; and

C. For source operations or installations which have not begun normal operations on the particular date, actual emissions shall equal the potential emissions of the source operation or installation on that date.

[4./11. Adequately wet—To sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

12. Adhesion primer—A coating that is applied to a polyolefin part to promote the adhesion of a subsequent coating. An adhesion prime is clearly identified as an adhesion prime or adhesion promoter on its material safety data sheet.

13. Adhesive—Any chemical substance that is applied for the purpose of bonding two (2) surfaces together other than by mechanical means. For the purpose of 10 CSR 10-5.330 only, an adhesive is considered a surface coating.

14. Adhesive application process—A series of one (1) or more adhesive applicators and any associated drying area and/or oven wherein an adhesive is applied, dried, and/or cured. An application process ends at the point where the adhesive is dried or cured, or prior to any subsequent application of a different adhesive. It is not necessary for an application process to have an oven or flash-off area.

15. Adhesive primer—A product intended by the manufacturer for application to a substrate, prior to the application of an adhesive, to provide a bonding surface.

[5./16. Administrator—The regional administrator for Region VII, U.S. Environmental Protection Agency (EPA). **For the purpose of 10 CSR 10-6.360 only, administrator is the administrator of the U.S. Environmental Protection Agency or the administrator's duly-authorized representative.**

[6./17. Adsorption cycle—The period during which the adsorption system is adsorbing and not desorbing.

[7./18. Adverse impact on visibility—The visibility impairment which interferes with the protection, preservation, management, or enjoyment of the visitor's visual experience of a Class I area, which is an area designated as Class I in 10 CSR 10-6.060(11)(A) Table 1. This determination must be made on a case-by-case basis taking into account the geographic extent, intensity, duration, frequency, and time of visibility impairments[,] and how these factors correlate with the times of visitor use of the Class I area and the frequency and timing of natural conditions that reduce visibility.

19. Aerospace manufacture and/or rework facility—Any installation that produces, reworks, or repairs in any amount any commercial, civil, or military aerospace vehicle or component.

20. Aerospace vehicle or component—Any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft.

21. Affected federal land manager—The federal agency or the federal official charged with direct responsibility for management of an area designated as Class I under the Clean Air Act (42 U.S.C. 7472) that is located within one hundred kilometers (100 km) of the proposed federal action.

[8./22. Affected source—A source that includes one (1) or more emission units subject to emission reduction requirements or limitations under Title IV of the Act. **For the purpose of 10 CSR 10-5.530 only, affected source is a wood furniture manufacturing facility that meets the criteria listed in subsections (1)(A) and (1)(B) of 10 CSR 10-5.530.**

[9./23. Affected states—All states contiguous to the permitting state whose air quality may be affected by the modification, renewal, or issuance of, or is within fifty (50) miles of, a source subject to permitting under Title V of the Act.

[10./24. Affected unit—A unit that is subject to emission reduction requirements or limitations under Title IV of the Act.

25. Affiliate—Any person, including an individual, corporation, service company, corporate subsidiary, firm, partnership, incorporated or unincorporated association, political subdivision including a public utility district, city, town, county, or a combination of political subdivisions, that directly or indirectly, through one (1) or more intermediaries, controls, is controlled by, or is under common control with the regulated electrical corporation.

[11./26. AHERA—See Asbestos Hazard Emergency Response Act [of 1986 (P.L. 99-519)].

[12./27. Air cleaning device—Any method, process, or equipment which removes, reduces, or renders less obnoxious air contaminants discharged into the ambient air.

[13./28. Air contaminant—Any particulate matter or any gas or vapor or any combination of them.

[14./29. Air contaminant source—Any and all sources of emission of air contaminants whether privately or publicly owned or operated.

[15./30. Air-dried coating—The coatings which are dried by the use of air or forced warm air at temperatures up to ninety degrees Celsius (90 °C) (one hundred ninety-four degrees Fahrenheit (194 °F)).

31. Air pollutant—Agent, or combination of agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and by-product material) substance, or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the staff director has identified such precursor(s) for the particular purpose for which the term "air pollutant" is used.

[16./32. Air pollution—The presence in the ambient air of one (1) or more air contaminants in quantities, of characteristics, and of a duration which directly and approximately cause or contribute to injury to human, plant, or animal life or health, or to property or which unreasonably interfere with the enjoyment of life or use of property.

33. Air pollution alert—The level of an air pollution episode known as an air pollution alert is that condition when the concentration of air contaminants reach the level at which the first stage control actions are to begin.

34. Air Stagnation Advisory—A special bulletin issued by the National Weather Service entitled "Air Stagnation Advisory," which is used to warn air pollution control agencies that stagnant atmospheric conditions are expected which could cause increased concentrations of air contaminants near the ground.

35. Air-tight cleaning system—A degreasing machine that is automatically operated and seals at a differential pressure no greater than one-half (0.5) pound per square inch gauge (psig) during all cleaning and drying cycles.

36. Airless cleaning system—A degreasing machine that is automatically operated and seals at a differential pressure of twenty-five (25) torr (twenty-five millimeters of mercury (25 mmHg) (0.475 pound per square inch (psi)) or less, prior to the introduction of solvent vapor into the cleaning chamber and maintains differential pressure under vacuum during all cleaning and drying cycles.

37. Alcohol—Refers to isopropanol, isopropyl alcohol, normal propyl alcohol, or ethanol.

38. Alcohol substitutes—Nonalcohol additives that contain volatile organic compounds (VOCs) and are used in the fountain solution.

39. Allocate or allocation—The determination by the director or the administrator of the number of NO_x allowances to be initially credited to a NO_x budget unit or an allocation set-aside.

[17.]40. Allowable emissions—The emission rate calculated using the maximum rated capacity of the installation (unless the source is subject to enforceable permit conditions which limit the operating rate or hours of operation, or both) and the most stringent of the following:

A. Emission limit established in any applicable emissions control rule including those with a future compliance date; or

B. The emission rate specified as a permit condition.

[18.]41. Allowance—An authorization, allocated to an affected unit by the administrator under Title IV of the Act, to emit, during or after a specified calendar year, one (1) ton of sulfur dioxide (SO₂).

42. Alternate authorized account representative—The alternate person who is authorized by the owners or operators of the unit to represent and legally bind each owner and operator in matters pertaining to the Emissions Banking and Trading Program or any other trading program in place of the authorized account representative.

[19.]43. Alternate site analysis—An analysis of alternative sites, sizes, production processes, and environmental control techniques for the proposed source which demonstrates that benefits of the proposed installation significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.

44. Alternative method—Any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method but that has been demonstrated to the director's satisfaction to, in specific cases, produce results adequate for a determination of compliance.

[20.]45. Ambient air—All space outside of buildings, stacks, or exterior ducts.

[21.]46. Ambient air increments—The limited increases of pollutant concentrations in ambient air over the baseline concentration.

47. Ancillary refueling system—Any gasoline-dispensing installation, including related equipment, that shares a common storage tank with an initial fueling system. The purpose of an ancillary refueling system is to refuel in-use motor vehicles equipped with onboard refueling vapor recovery (ORVR) at automobile assembly plants.

48. Animal matter—Any product or derivative of animal life.

[22.]49. Anode bake plant—A facility which produces carbon anodes for use in a primary aluminum reduction installation.

50. Antifoulant coating—A coating applied to the underwater portion of a pleasure craft to prevent or reduce the attachment of biological organisms and registered with the U.S. Environmental Protection Agency (EPA) as a pesticide under the federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code Section 136).

51. Antifoulant sealer/tie coating—A coating applied over biocidal antifoulant coating for the purpose of preventing release of biocides into the environment and/or to promote adhesion between an antifoulant and a primer or other antifoulant.

52. Antique aerospace vehicle or component—An aircraft or component thereof that was built at least thirty (30) years ago. An antique aerospace vehicle would not routinely be in commercial or military service in the capacity for which it was designed.

53. Applicability analysis—The process of determining if the federal action must be supported by a conformity determination.

54. Applicable implementation plan or applicable state implementation plan (SIP)—The portion (or portions) of the SIP or most recent revision thereof, which has been approved under section 110(k) of the Act, a federal implementation plan promulgated under section 110(c) of the Act, or a plan promulgated or approved pursuant to section 301(d) of the Act (tribal implementation plan) and which implements the relevant requirements of the Act.

[23.]55. Applicable requirement—All of the following listed in the Act:

A. Any standard or requirement provided for in the implementation plan approved or promulgated by EPA through rulemaking under Title I of the Act that implements the relevant requirements, including any revisions to that plan promulgated in 40 CFR [part] 52;

B. Any term or condition of any preconstruction permit issued pursuant to regulations approved or promulgated through rulemaking under Title I, including part C or D of the Act;

C. Any standard or requirement under section 111 of the Act, including section 111(d);

D. Any standard or requirement under section 112 of the Act, including any requirement concerning accident prevention under section 112(r)(7);

E. Any standard or requirement of the acid rain program under Title IV of the Act or the regulations promulgated under it;

F. Any requirements established pursuant to section 504(b) or section 114(a)(3) of the Act;

G. Any standard or requirement governing solid waste incineration[,] under section 129 of the Act;

H. Any standard or requirement for consumer and commercial products[,] under section 183(e) of the Act;

I. Any standard or requirement for tank vessels under section 183(f) of the Act;

J. Any standard or requirement of the program to control air pollution from outer continental shelf sources[,] under section 328 of the Act;

K. Any standard or requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the Act, unless the administrator has determined that these requirements need not be contained in a Title V permit;

L. Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the Act, but only as it would apply to temporary sources permitted pursuant to section 504(e); and

M. Any standard or requirement established in sections 643.010–643.190, RSMo, of the Missouri Air Conservation Law and rules adopted under them.

[24.]56. Approved source—A source of fuel which has been found by the department director, after the tests as s/he may require, to be in compliance with [these] applicable rules.

57. Aqueous solvent—A solvent in which water is the primary ingredient (greater than eighty percent (80%) by weight or greater than sixty percent (60%) by volume of solvent solution as applied must be water). Detergents, surfactants, and bioenzyme mixtures and nutrients may be combined with the water along with a variety of additives such as organic solvents (e.g., high boiling point alcohols), builders, saponifiers, inhibitors, emulsifiers, pH buffers, and antifoaming agents. Aqueous solutions

must have a flash point greater than ninety-three degrees Celsius (93 °C) (two hundred degrees Fahrenheit (200 °F)) (as reported by the manufacturer) and the solution must be miscible with water.

58. Architectural coating—A coating recommended for field application to stationary structures and their appurtenances, to portable buildings, to pavements, or to curbs. This definition excludes adhesives and coatings recommended by the manufacturer or importer solely for shop applications or solely for application to non-stationary structures, such as airplanes, ships, boats, and railcars.

59. Area—Any or all regions within the boundaries of the state of Missouri, as specified.

[25.]60. Area of the state—Any geographical area designated by the commission.

61. Area-wide air quality modeling analysis—An assessment on a scale that includes the entire nonattainment or maintenance area using an air quality dispersion model or photochemical grid model to determine the effects of emissions on air quality; for example, an assessment using EPA's community multi-scale air quality (CMAQ) modeling system.

62. As applied—The VOC and solids content of the finishing material that is actually used for coating the substrate. It includes the contribution of materials used for in-house dilution of the finishing material.

[26.]63. Asbestos—The asbestiform varieties of chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite.

[27.]64. Asbestos abatement—The encapsulation, enclosure, or removal of asbestos-containing materials, in or from a building, or air contaminant source; or preparation of friable asbestos-containing material prior to demolition.

[28.]65. Asbestos abatement contractor—Any person who by agreement, contractual or otherwise, conducts asbestos abatement projects at a location other than his/her own place of business.

[29.]66. Asbestos abatement project—An activity undertaken to encapsulate, enclose, or remove ten (10) square feet or sixteen (16) linear feet or more of friable asbestos-containing materials from buildings and other air contaminant sources[,] or to demolish buildings and other air contaminant sources containing ten (10) square feet or sixteen (16) linear feet or more.

[30.]67. Asbestos abatement supervisor—An individual who directs, controls, or supervises others in asbestos abatement projects.

[31.]68. Asbestos abatement worker—An individual who engages in asbestos abatement projects.

[32.]69. Asbestos air sampling professional—An individual who by qualifications and experience is proficient in asbestos abatement air monitoring. The individual shall conduct, oversee, or be responsible for air monitoring of asbestos abatement projects before, during, and after the project has been completed.

[33.]70. Asbestos air sampling technician—An individual who has been trained by an air sampling professional to do air monitoring. That individual conducts air monitoring of an asbestos abatement project before, during, and after the project has been completed.

[34.]71. Asbestos-containing material (ACM)—Any material or product which contains more than one percent (1%) asbestos, by weight.

[35.]72. Asbestos debris—Material that results from removal or deterioration of asbestos-containing material.

[36.]73. Asbestos Hazard Emergency Response Act (AHERA)—*[(AHERA) of]* Law enacted in 1986 (P.L. 99-519) that directs EPA to develop a regulatory framework to require schools to inspect their building(s) for asbestos and take appropriate abatement actions using qualified, accredited persons for inspection and abatement.

[37.]74. Asbestos projects—An activity undertaken to remove or encapsulate one hundred sixty (160) square feet or two hundred sixty (260) linear feet or more of friable asbestos-containing materi-

als or demolition of any structure or building or a part of it containing the previously-mentioned quantities of asbestos-containing materials.

[38.]75. Asbestos removal project—An asbestos abatement project consisting of activities that involve, and are required[,]/ to take out, friable asbestos-containing materials from any facility. This definition includes, but is not limited to, activities associated with the cleanup of loose friable asbestos-containing debris or refuse, or both, from floors and other surfaces.

[39.]76. ASME—American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017.

[40.]77. Asphalt prime coat—Application of low-viscosity liquid asphalt to an absorbent surface such as a previously-untreated surface.

[41.]78. Asphalt seal coat—An application of a thin asphalt surface treatment used to waterproof and improve the texture of an absorbent surface or a nonabsorbent surface such as asphalt or concrete.

[42.]79. ASTM—American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

80. Authorized account representative—The person who is authorized by the owners or operators of the unit to represent and legally bind each owner and operator in matters pertaining to the Emissions Banking and Trading Program or any other budget trading program.

81. Automated data acquisition and handling system (DAHS)—That component of the Continuous Emissions Monitoring System (CEMS), or other emissions monitoring system approved for use by the department, designed to interpret and convert individual output signals from pollutant concentration monitors, diluent gas monitors, and other component parts of the monitoring system to produce a continuous record of the measured parameters in approved measurement units.

82. Automatic blanket wash system—Equipment used to clean lithographic blankets which can include, but is not limited to, those utilizing a cloth and expandable bladder, brush, spray, or impregnated cloth system.

[43.]83. Automobile—A four (4)-wheel passenger motor vehicle or derivative capable of seating no more than twelve (12) passengers.

84. Automobile and light duty truck adhesive—An adhesive, including glass bonding adhesive, used at an automobile or light duty truck assembly coating installation, applied for the purpose of bonding two (2) motor vehicle surfaces together without regard to the substrates involved.

85. Automobile and light duty truck bedliner—A multi-component coating, used at an automobile or light duty truck assembly coating installation, applied to a cargo bed after the application of topcoat and outside of the topcoat operation to provide additional durability and chip resistance.

86. Automobile and light duty truck cavity wax—A coating, used at an automobile or light duty truck assembly coating installation, applied into the cavities of the motor vehicle primarily for the purpose of enhancing corrosion protection.

87. Automobile and light duty truck deadener—A coating, used at an automobile or light duty truck assembly coating installation, applied to selected motor vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment.

88. Automobile and light duty truck gasket/gasket-sealing material—A fluid, used at an automobile or light duty truck assembly coating installation, applied to coat a gasket or replace and perform the same function as a gasket. Automobile and light duty truck gasket/gasket-sealing material includes room temperature vulcanization (RTV) seal material.

89. Automobile and light duty truck glass bonding primer—A primer, used at an automobile or light duty truck assembly coating installation, applied to windshield or other glass, or to

body openings, to prepare the glass or body opening for the application of glass bonding adhesives or the installation of adhesive bonded glass. Automobile and light duty truck glass bonding primer includes glass bonding/cleaning primers that perform both functions (cleaning and priming of the windshield or other glass or body openings) prior to the application of adhesive or the installation of adhesive bonded glass.

90. Automobile and light duty truck lubricating wax/compound—A protective lubricating material, used at an automobile or light duty truck assembly coating installation, applied to motor vehicle hubs and hinges.

91. Automobile and light duty truck sealer—A high viscosity material, used at an automobile or light duty truck assembly coating installation, generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating and before the application of subsequent coatings (e.g., primer-surfacer). Such materials are also referred to as sealant, sealant primer, or caulk.

[44.]92. Automobile and light[-] duty truck surface coating operations—The application, flashoff, and curing of prime, primer-surfacer, topcoat, and final repair coatings during the assembly of passenger cars and light duty trucks excluding the following operations:

- A. Wheel coatings;
- B. Miscellaneous antirust coatings;
- C. Truck interior coatings;
- D. Interior coatings;
- E. Flexible coatings;
- F. Sealers and adhesives; and
- G. Plastic parts coatings. (Customizers, body shops, and other repainters are not part of this definition.)

93. Automobile and light duty truck trunk interior coating—A coating, used at an automobile or light duty truck assembly coating installation outside of the primer-surfacer and topcoat operations, applied to the trunk interior to provide chip protection.

94. Automobile and light duty truck underbody coating—A coating, used at an automobile or light duty truck assembly coating installation, applied to the undercarriage or firewall to prevent corrosion and/or provide chip protection.

95. Automobile and light duty truck weatherstrip adhesive—An adhesive, used at an automobile or light duty truck assembly coating installation, applied to weatherstripping material for the purpose of bonding the weatherstrip material to the surface of the motor vehicle.

[45.]96. Automotive underbody deadeners—Any coating applied to the underbody of a motor vehicle to reduce the noise reaching the passenger compartment.

97. Auxiliary power unit (APU)—An integrated system that—

A. Provides heat, air conditioning, engine warming, or electricity to components on a heavy duty vehicle; and

B. Is certified by the Administrator under part 89 of Title 40, *Code of Federal Regulations* (or any successor regulation), as meeting applicable emissions standards.

98. Average emission rate—The simple average of the hourly NO_x emission rate as recorded by approved monitoring systems.

(B) All terms beginning with “B.”

1. Bag leak detection system—An instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light-scattering, light-transmittance, or other effects to monitor relative particulate matter loadings.

2. Baked coating—A coating that is cured at a temperature at or above one hundred ninety-four degrees Fahrenheit (194 °F).

[1.]3. Base year—The year chosen in the state implementation plan to directly correlate emissions of the nonattainment pollutant in the nonattainment area with ambient air quality data pertaining to the

pollutant. From the base year, projections are made to determine when the area will attain and maintain the ambient air quality standards.

4. Basecoat—A coat of colored material, usually opaque, that is applied after primer but before graining inks, glazing coats, or other opaque finishing materials and is usually top-coated for protection.

[2.]5. Baseline area—The continuous area in which the source constructs as well as those portions of the intrastate area which are not part of a nonattainment area and which would receive an air quality impact equal to or greater than one microgram per cubic meter ($1 \mu\text{g}/\text{m}^3$) annual average (established by modeling) for each pollutant for which an installation receives a permit under 10 CSR 10-6.060(8) and for which increments have been established in 10 CSR 10-6.060(11)(A), Table 1. Each of these areas are references to the standard United States Geological Survey (USGS) County-Township-Range-Section system. The smallest unit of area for which a baseline date will be set is one (1) section (one (1) square mile).

[3.]6. Baseline concentration—That ambient concentration level which exists at locations of anticipated maximum air quality impact or increment consumption within a baseline area at the time of the applicable baseline date, minus any contribution from installations, modifications, and major modifications subject to 10 CSR 10-6.060(8) or subject to 40 CFR 52.21 on which construction commenced on or after January 6, 1975, for sulfur dioxide and particulate matter, and February 8, 1988, for nitrogen dioxide. The baseline concentration shall include contributions from:

A. The actual emissions of other installations in existence on the applicable baseline date; and

B. The potential emissions of installations and major modifications which commenced construction before January 6, 1975, but were not in operation by the applicable baseline date.

[4.]7. Baseline date—The date, for each baseline area, of the first complete application after August 7, 1977, for sulfur dioxide and particulate matter, and February 8, 1988, for nitrogen dioxide for a permit to construct and operate an installation subject to 10 CSR 10-6.060(8) or subject to 40 CFR 52.21.

8. Basic state installations—Installations which meet any of the following criteria, but are not part 70 installations:

A. Emit or have the potential to emit any air pollutant in an amount greater than the *de minimis* levels. The fugitive emissions of an installation shall not be considered unless the installation belongs to one (1) of the source categories listed in to 10 CSR 10-6.020(3)(B), Table 2; or

B. Either of the following criteria, provided the U.S. EPA administrator has deferred a decision on whether the installation would be subject to part 70:

(I) Are subject to a standard, limitation, or other requirement under section 111 of the Act, including area sources subject to a standard, limitation, or other requirement under section 111 of the Act; or

(II) Are subject to a standard or other requirement under section 112 of the Act, except that a source is not required to obtain a permit solely because it is subject to rules or requirements under section 112(r) of the Act, including area sources subject to a standard or other requirement under section 112 of the Act, except that an area source is not required to obtain a permit solely because it is subject to regulations or requirements under section 112(r) of the Act.

9. Batch—A discontinuous process involving the bulk movement of material through sequential manufacturing steps, typically characterized as non-steady-state.

10. Batch cycle—A manufacturing event of an intermediate or product from start to finish in a batch process.

11. Batch HMIWI—A hospital medical infectious waste incinerator that is designed such that neither waste charging nor ash removal can occur during combustion.

12. Batch process operation—A discontinuous operation in which a discrete quantity or batch of feed is charged into a chemical manufacturing process unit and distilled or reacted, or otherwise used at one (1) time, and may include, but is not limited to, reactors, filters, dryers, distillation columns, extractors, crystallizers, blend tanks, neutralizer tanks, digesters, surge tanks, and product separators. After each batch process operation, the equipment is generally emptied before a fresh batch is started.

13. Batch process train—The collection of equipment (e.g., reactors, filters, dryers, distillation columns, extractors, crystallizers, blend tanks, neutralizer tanks, digesters, surge tanks, and product separators) configured to produce a product or intermediate by a batch process operation. A batch process train terminates at the point of storage of the product or intermediate being produced in the batch process train. Irrespective of the product being produced, a batch process train which is independent of other processes shall be considered a single batch process train for purposes of rule 10 CSR 10-5.540.

14. Batch-type charcoal kiln—Charcoal kilns that manufacture charcoal with a batch process rather than a continuous process. The batch-type charcoal kiln process typically includes loading wood, sealing the kiln, igniting the wood, and controlled burning of the wood to produce charcoal which is unloaded.

[5./15. Best available control technology (BACT)—An emission limitation (including a visible emission limit) based on the maximum degree of reduction for each pollutant which would be emitted from any proposed installation or major modification which the director on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable for the installation or major modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of the pollutant. In no event shall application of BACT result in emissions of any pollutant which would exceed the emissions allowed by any applicable emissions control regulation, including New Source Performance Standards established in 10 CSR 10-6.070 and 40 CFR [part] 60 and National Emissions Standards for Hazardous Pollutants established in 10 CSR 10-6.080 and 40 CFR [part] 61. If the director determines that technological or economic limitations on the application of measurement methodology to a particular source operation would make the imposition of an emission limitation infeasible, a design, equipment, work practice, operational standard, or combination of these may be prescribed instead to require the application of BACT. This standard, to the degree possible, shall set forth the emission reduction achievable by implementation of the design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results.

16. Beverage alcohol—Consumable products and their process intermediates and by-products, consisting of ethanol or mixtures of ethanol and non-volatile organic liquids.

17. Biologicals—Preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

18. Black start unit—Any electric generating unit operated only in the event of a complete loss of power.

19. Blood products—Any product derived from human blood, including but not limited to blood plasma, platelets, red or white blood corpuscles, and other derived licensed products, such as interferon, etc.

20. Body fluids—Liquid emanating or derived from humans and limited to blood; dialysate, amniotic, cerebrospinal, synovial, pleural, peritoneal, and pericardial fluids; and semen and vaginal secretions.

21. Boiler—An enclosed fossil or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

[6./22. Building—Any structure excluding single-family, owner-occupied dwellings, and vacant public- or privately-owned residential structures of four (4) dwelling units or less being demolished for the sole purpose of public health, safety, or welfare. Excluded structures must be geographically dispersed, demolished pursuant to a public safety determination, and [must pose] posing a threat to public safety.

23. Bulk plant—Any gasoline storage and distribution facility that receives gasoline by pipeline, ship or barge, or cargo tank and subsequently loads the gasoline into gasoline cargo tanks for transport to gasoline dispensing facilities, and has a gasoline throughput of less than twenty thousand (20,000) gallons per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under federal, state, or local law.

24. Bulk terminal—Any gasoline storage and distribution facility that receives gasoline by pipeline, ship or barge, or delivery tank and has a gasoline throughput of twenty thousand (20,000) gallons per day or greater. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under federal, state, or local law.

25. Burn cycle—The burn cycle for a charcoal kiln begins at the time that a batch of wood is initially lit and ends when the burn for that batch is completed and the kiln is sealed. The burn cycle does not include cool-down time.

26. Business day—All days, excluding Saturdays, Sundays, and state holidays, that a facility is open to the public.

27. Business machine—A device that uses electronic or mechanical methods to process information, perform calculations, print or copy information, or convert sound into electrical impulses for transmission, including devices listed in standard industrial classification numbers 3572, 3573, 3574, 3579, and 3661 and photocopy machines, a subcategory of standard industrial classification number 3861.

28. By compound—By individual stream components, not carbon equivalents.

29. Bypass stack—A device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

(C) All terms beginning with "C."

1. CAA—The Clean Air Act, as amended; see also "Act."

2. Camouflage coating—A coating, used principally by the military, to conceal equipment from detection.

3. Capacity factor—Ratio (expressed as a percentage) of a power generating unit's actual annual electric output (expressed in MWe-hr) divided by the unit's nameplate capacity multiplied by eight thousand seven hundred sixty (8,760) hours.

4. Capture device—A hood, enclosed room, floor sweep, or other means of collecting solvent emissions or other pollutants into a duct so that the pollutant can be directed to a pollution control device such as an incinerator or carbon adsorber.

5. Capture efficiency—The fraction of all organic vapors generated by a process that is directed to a control device.

6. CARB—California Air Resources Board, 2020 L Street, PO Box 2815, Sacramento, CA 95812.

[1./7. Carbon adsorption system—A device containing adsorbent material (for example, activated carbon, aluminum, silica gel); an inlet and outlet for exhaust gases; and a system to regenerate the saturated adsorbent. The carbon adsorption system must provide for the proper disposal or reuse of all volatile organic compounds (VOC) adsorbed.

8. Cargo tank—A delivery tank truck or railcar which is loading gasoline or which has loaded gasoline on the immediately-previous load.

[2./9. Catalytic incinerator—A control device using a catalyst to allow combustion to occur at a lower temperature.

[3.]/10. Category I nonfriable ACM—Asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent (1%) asbestos as determined using the method specified in 40 CFR [part] 763, subpart E, Appendix E, section 1, Polarized Light Microscopy.

[4.]/11. Category II nonfriable ACM—Any material, excluding category I nonfriable ACM, containing more than one percent (1%) asbestos as determined using the method specified in 40 CFR [part] 763, subpart E, Appendix E, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

12. Cause or contribute to a new violation—A federal action that—

A. Causes a new violation of a national ambient air quality standard (NAAQS) at a location in a nonattainment or maintenance area which would otherwise not be in violation of the standard during the future period in question if the federal action were not taken; or

B. Contributes, in conjunction with other reasonably foreseeable actions, to a new violation of a NAAQS at a location in a nonattainment or maintenance area in a manner that would increase the frequency or severity of the new violation.

13. Caused by, as used in the terms “direct emissions” and “indirect emissions”—Emissions that would not otherwise occur in the absence of the federal action.

14. Ceramic tile installation adhesive—An adhesive intended by the manufacturer for use in the installation of ceramic tiles.

15. Certified product data sheet—Documentation furnished by a coating supplier or an outside laboratory that provides the VOC content by percent weight, the solids content by percent weight, and density of a finishing material, strippable booth coating, or solvent, measured using the EPA Method 24, or an equivalent or alternative method (or formulation data, if approved by the director). The purpose of the certified product data sheet is to assist the affected source in demonstrating compliance with the emission limitations. Therefore, the VOC content should represent the maximum VOC emission potential of the finishing material, strippable booth coating, or solvent.

16. Charcoal kiln—Any closed structure used to produce charcoal by controlled burning (pyrolysis) of wood. Retorts and furnaces used for charcoal production are not charcoal kilns.

17. Charcoal kiln control system—A combination of an emission control device and connected charcoal kiln(s).

18. Chemical milling maskant—A coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type I or Type II etchant. Type I chemical milling maskants are used with a Type I etchant, and Type II chemical milling maskants are used with a Type II etchant. This definition does not include bonding maskants, critical use and line sealer maskants, and seal coat maskants. Maskants that must be used with a combination of Type I or Type II etchants and any of the above types of maskants are also not included in this definition.

19. Chemotherapeutic waste—Waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

[5.]/20. Circumvention—Building, erecting, installing, or using any article, machine, equipment, process, or method which, when used, would conceal an emission that would otherwise constitute a violation of an applicable standard or requirement. That concealment includes, but is not limited to, the use of gaseous adjuncts to achieve compliance with a visible emissions standard, and the piecemeal carrying out of an operation to avoid coverage by a standard that applies only to operations larger than a specific size.

21. Class I hardboard—A hardboard panel that meets the specifications of Voluntary Product Standard PS 59-73 as approved by the American National Standards Institute.

22. Class II finish—A finish applied to hardboard panels that meets the specifications of Voluntary Product Standard PS 59-73 as approved by the American National Standards Institute.

[6.]/23. Clean room—An uncontaminated area or room which is a part of the worker decontamination enclosure system.

24. Clean scanning—The illegal act of connecting the On-Board Diagnostics (OBD) cable or wireless transmitter to the data link connector of a vehicle other than the vehicle photographed and identified on the emissions VIR for the purpose of bypassing the required OBD test procedure.

25. Cleaning operations—processes of cleaning products, product components, tools, equipment, or general work areas during production, repair, maintenance or servicing, including, but not limited to, spray gun cleaning, spray booth cleaning, large and small manufactured component cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, and tank cleaning, at sources with emission units.

26. Cleaning solution—A liquid solvent used to remove printing ink and debris from the surfaces of the printing press and its parts. Cleaning solutions include, but are not limited to, blanket wash, roller wash, metering roller cleaner, plate cleaner, impression cylinder washes, and rubber rejuvenators.

[7.]/27. Clear coat—A coating which lacks color and opacity or is transparent and uses the undercoat as a reflectant base or undertone color. This term also includes corrosion preventative coatings used for the interior of drums or pails.

28. Clear wood finishes—Clear and semi-transparent topcoats applied to wood substrates to provide a transparent or translucent film.

29. Clinker—The product of a Portland cement kiln from which finished cement is manufactured by milling and grinding.

[8.]/30. Closed container—A container with a cover fastened in place so that it will not allow leakage or spilling of the contents.

31. Closed landfill—A landfill in which solid waste is no longer being placed and in which no additional wastes will be placed without first filing a notification of modification as prescribed under 40 CFR 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.

32. Closure—That point in time when a landfill becomes a closed landfill.

33. Coating—A protective, decorative, or functional material applied in a thin layer to a surface. Such materials include, but are not limited to, paints, topcoats, varnishes, sealers, stains, washcoats, basecoats, inks, and temporary protective coatings. For the purposes of 10 CSR 10-5.330, coating does not include ink used in printing operations regulated under 10 CSR 10-5.340 and 10 CSR 10-5.442.

[9.]/34. Coating applicator—An apparatus used to apply a surface coating.

[10.]/35. Coating line—One (1) or more apparatus or operations which include a coating applicator, flash-off area, and oven where a surface coating is applied, dried, or cured, or a combination of these.

36. Coating solids (or “solids”)—The part of the coating that remains after the coating is dried or cured; solids content is determined using data from EPA Method 24, or an alternative or equivalent method.

37. Co-fired combustor—A unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, ten percent (10%) or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar-quarter basis. For purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered “other wastes” when calculating the percentage of hospital waste and medical/infectious waste combusted.

38. Cogenerator—For the purposes of paragraph (1)(A)3. of 10 CSR 10-6.364 only, cogenerator is a facility which—

A. For a unit that commenced construction on or prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third (1/3) its potential electrical output capacity or equal to or less than two hundred nineteen thousand (219,000) MWe-hrs actual electric output on an annual basis to any utility power distribution system for sale (on a gross basis). If the purpose of construction is not known, the administrator will presume that actual operation from 1985 through 1987 is consistent with such purpose. However, if in any three (3)-calendar-year period after November 15, 1990, such unit sells to a utility power distribution system an annual average of more than one-third (1/3) of its potential electrical output capacity and more than two hundred nineteen thousand (219,000) MWe-hrs actual electric output (on a gross basis), that unit shall be an affected unit, subject to the requirements of the acid rain program; or

B. For units which commenced construction after November 15, 1990, supplies equal to or less than one-third (1/3) its potential electrical output capacity or equal to or less than two hundred nineteen thousand (219,000) MWe-hrs actual electric output on an annual basis to any utility power distribution system for sale (on a gross basis). However, if in any three (3)-calendar-year period after November 15, 1990, such unit sells to a utility power distribution system an annual average of more than one-third (1/3) of its potential electrical output capacity and more than two hundred nineteen thousand (219,000) MWe-hrs actual electric output (on a gross basis), that unit shall be an affected unit, subject to the requirements of the acid rain program.

[11.]39. Cold cleaner—Any device or piece of equipment that contains and/or uses liquid solvent, into which parts are placed to remove soils from the surfaces of the parts or to dry the parts. Cleaning machines that contain and use heated nonboiling solvent to clean the parts are classified as cold cleaning machines.

40. Cold rolling mill—Batch process aluminum sheet rolling mill with a preset gap between the work rolls used to reduce the sheet thickness. The process generally occurs at temperatures below two hundred sixty-five degrees Fahrenheit (265 °F). A cold rolling mill is used mainly for the production of aluminum sheet at gauges between three-tenths of one inch to two-thousandths of one inch (0.3"-0.002"). Reductions to finish gauge may occur in one (1) pass or several passes.

41. Combined cycle system—A system comprised of one (1) or more combustion turbines, heat recovery steam generators, and steam turbines configured to improve overall efficiency of electricity generation or steam production.

42. Combustion turbine—An enclosed fossil or other fuel-fired device that is comprised of a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine.

[12.]43. Commenced—An owner or operator has undertaken a continuous program of construction or modification *[or that an owner or operator]*, has entered into a binding agreement, or has contractual obligation to undertake and complete within a reasonable time[,] a continuous program of construction or modification.

44. Commenced commercial operation—With regard to a unit that serves a generator, to have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation. For the purpose of 10 CSR 10-6.360 only, the date of commencement of commercial operation shall be as follows:

A. Except as provided in subsection (1)(E) of 10 CSR 10-6.360, for a unit that is a NO_x budget unit under section (1) of 10 CSR 10-6.360 on the date the unit commences commercial operation, such date shall remain the unit's date of commencement of

commercial operation even if the unit is subsequently modified, reconstructed, or repowered; and

B. Except as provided in subsections (1)(E) or (3)(H) of 10 CSR 10-6.360, for a unit that is not a NO_x budget unit under section (1) of 10 CSR 10-6.360 on the date the unit commences commercial operation, the date the unit becomes a NO_x budget unit under section (1) of 10 CSR 10-6.360 shall be the unit's date of commencement of commercial operation.

[13.]45. Commenced operation—The initial setting into operation of any air pollution control equipment or process equipment. For the purpose of 10 CSR 10-6.360 only, commenced operation is to have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber and the date of commencement of operation shall be as follows:

A. Except as provided in subsection (1)(E) of 10 CSR 10-6.360, for a unit that is a NO_x budget unit under section (1) of 10 CSR 10-6.360 on the date of commencement of operation, such date shall remain the unit's date of commencement of operation even if the unit is subsequently modified, reconstructed, or repowered; and

B. Except as provided in subsection (1)(E) of 10 CSR 10-6.360 or subsection (3)(H) of 10 CSR 10-6.360, for a unit that is not a NO_x budget unit under section (1) of 10 CSR 10-6.360 on the date of commencement of operation, the date the unit becomes a NO_x budget unit under section (1) of 10 CSR 10-6.360 shall be the unit's date of commencement of operation.

46. Commercial HMIWI—An HMIWI which offers incineration services for hospital/medical/infectious waste generated off-site by firms unrelated to the firm that owns the HMIWI.

47. Commercial solid waste—All types of solid waste generated by stores, offices, restaurants, warehouses, and other non-manufacturing activities, excluding residential and industrial wastes.

[14.]48. Commercial vehicle—*[A motor vehicle designed or regularly used for carrying freight and merchandise or more than eight (8) passengers]* Any motor vehicle, other than a passenger vehicle, and any trailer, semitrailer, or pole trailer drawn by such motor vehicle, that is designed, used, and maintained for the transportation of persons or property for hire, compensation, profit, or in the furtherance of a commercial enterprise.

49. Commercial/Institutional boiler—A boiler used in commercial establishments or institutional establishments such as medical centers, institutions of higher education, hotels, and laundries to provide electricity, steam, and/or hot water.

[15.]50. Commission—The Missouri Air Conservation Commission established pursuant to section 643.040, RSMo.

51. Common stack—A single flue through which emissions from two (2) or more NO_x units are exhausted.

52. Compliance account—A NO_x allowance tracking system account, established for an affected unit, in which the NO_x allowance allocations for the unit are initially recorded and in which are held NO_x allowances available for use by the unit for a control period for the purpose of meeting the unit's NO_x emission limitation.

53. Compliance certification—A submission to the director or the administrator, that is required to report a NO_x budget source's or a NO_x budget unit's compliance or noncompliance with stated requirements and that is signed by the NO_x authorized account representative in accordance with 10 CSR 10-6.360.

54. Compliance cycle—The two (2)-year duration during which a subject vehicle in the enhanced emissions inspection program area is required to comply with sections 643.300–643.355, RSMo.

A. For private-entity vehicles, the compliance cycle begins sixty (60) days prior to the subject vehicle's registration and biennial license plate tab expiration.

B. For public-entity vehicles, the compliance cycle begins on January 1 of each even-numbered calendar year. The compliance cycle ends on December 31 of each odd-numbered calendar year.

55. Compliant coating—A finishing material or strippable booth coating that meets the emission limits as specified.

[16.]/**56. Condensate (hydrocarbons)**—A hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

[17.]/**57. Condenser**—Any heat transfer device used to liquefy vapors by removing their latent heats of vaporization including, but not limited to, shell and tube, coil, surface, or contact condensers.

58. Conference, conciliation, and persuasion—A process of verbal or written communications, including but not limited to meetings, reports, correspondence, or telephone conferences between authorized representatives of the department and the alleged violator. The process shall, at minimum, consist of one (1) offer to meet with the alleged violator tendered by the department. During any such meeting, the department and the alleged violator shall negotiate in good faith to eliminate the alleged violation and shall attempt to agree upon a plan to achieve compliance.

59. Confidential business information—Secret processes, secret methods of manufacture or production, trade secrets, and other information possessed by a business that, under existing legal concepts, the business has a right to preserve as confidential, and to limit its use by not disclosing it to others in order that the business may obtain or retain business advantages it derives from its rights in the information. For the purpose of 10 CSR 10-6.300, confidential business information (CBI) is information that has been determined by a federal agency, in accordance with its applicable regulations, to be a trade secret, or commercial or financial information obtained from a person and privileged or confidential and is exempt from required disclosure under the Freedom of Information Act (5 U.S.C. 552(b)(4)).

60. Conformity determination—The evaluation (made after an applicability analysis is completed) that a federal action conforms to the applicable implementation plan and meets the requirements of rule 10 CSR 10-6.300.

61. Conformity evaluation—The entire process from the applicability analysis through the conformity determination that is used to demonstrate that the federal action conforms to the requirements of rule 10 CSR 10-6.300.

[18.]/**62. Conservation vent**—Any valve designed and used to reduce evaporation losses of VOC by limiting the amount of air admitted to, or vapors released from, the vapor space of a closed storage vessel.

63. Consolidated Emissions Reporting Rule (CERR)—A U.S. Environmental Protection Agency (EPA) rule designed to simplify federal reporting and unify state and local agency reporting dates.

[19.]/**64. Construction**—Fabricating, erecting, reconstructing, or installing a source operation. Construction shall include installation of building supports and foundations, laying of underground pipe work, building of permanent storage structures, and other construction activities related to the source operation.

65. Contact adhesive—An adhesive that—

A. Is designed for application to both surfaces to be bonded together;

B. Is allowed to dry before the two (2) surfaces are placed in contact with each other;

C. Forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other; and

D. Does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces.

Contact adhesive does not include rubber cements that are primarily intended for use on paper substrates. Contact adhesive also does not include vulcanizing fluids that are designed and labeled for tire repair only.

[20.]/**66. Containment**—The area where an asbestos abatement project is conducted. The area must be enclosed either by a glove bag or plastic sheeting barriers.

67. Continuing program responsibility—A federal agency has responsibility for emissions caused by actions it takes itself or actions of non-federal entities that the federal agency, in exercising its normal programs and authorities, approves, funds, licenses, or permits, provided the agency can impose conditions on any portion of the action that could affect the emissions.

68. Continuous coater—A finishing system that continuously applies finishing materials onto furniture parts moving along a conveyor system. Finishing materials that are not transferred to the part are recycled to the finishing material reservoir. Several types of application methods can be used with a continuous coater including spraying, curtain coating, roll coating, dip coating, and flow coating.

69. Continuous emissions monitoring system (CEMS)—Monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility. For the purposes of 10 CSR 10-6.350 and 10 CSR 10-6.360, CEMS means the equipment required to sample, analyze, measure, and provide, by readings taken at least once every fifteen (15) minutes of the measured parameters, a permanent record of nitrogen oxides emissions, expressed in tons per hour for nitrogen oxides. The following systems are component parts included, consistent with 40 CFR 75, in a continuous emissions monitoring system:

A. Flow monitor;

B. Nitrogen oxides pollutant concentration monitors;

C. Diluent gas monitor (oxygen or carbon dioxide) when such monitoring is required;

D. A continuous moisture monitor when such monitoring is required; and

E. An automated data acquisition and handling system.

70. Continuous HMIWI—An HMIWI that is designed to allow waste charging and ash removal during combustion.

71. Continuous Opacity Monitoring System (COMS)—All equipment required to continuously measure and record the opacity of emissions within a stack or duct. COMS consists of sample interface, analyzer, and data recorder components and usually includes, at a minimum, transmissometers, transmissometer control equipment, and data transmission, acquisition, and recording equipment.

72. Continuous program to implement—The federal agency has started the action identified in the plan and does not stop the actions for more than an eighteen (18)-month period, unless it can demonstrate that such a stoppage was included in the original plan.

73. Continuous recorder—A data recording device recording an instantaneous data value at least once every fifteen (15) minutes.

74. Contractor—The state contracted company who shall implement the decentralized motor vehicle emissions inspection program as specified in sections 643.300–643.355, RSMo, and the state contracted company who shall implement the acceptance test procedure.

75. Control device—Any equipment that reduces the quantity of a pollutant that is emitted to the air. The device may destroy or secure the pollutant for subsequent recovery. Includes, but is not limited to, incinerators, carbon adsorbers, and condensers.

76. Control device efficiency—The ratio of the pollution released by a control device and the pollution introduced to the control device, expressed as a fraction.

77. Control period—The period beginning May 1 of a calendar year and ending on September 30 of the same calendar year.

78. Control system—The combination of capture and control devices used to reduce emissions to the atmosphere.

79. Controlled landfill—Any landfill at which collection and control systems are required under this rule as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled if a collection and control system design plan is submitted in compliance with the applicable rule.

80. Conventional air spray—A spray coating method in which the coating is atomized by mixing it with compressed air at an air pressure greater than ten (10) pounds per square inch (gauge) at the point of atomization. Airless and air-assisted airless spray technologies are not conventional air spray because the coating is not atomized by mixing it with compressed air. Electrostatic spray technology is also not considered conventional air spray because an electrostatic charge is employed to attract the coating to the workpiece.

[21./81. Conveyorized degreaser—A type of degreaser in which the parts are loaded continuously.

82. Cove base—A flooring trim unit, generally made of vinyl or rubber, having a concave radius on one (1) edge and a convex radius on the opposite edge that is used in forming a junction between the bottom wall course and the floor or to form an inside corner.

83. Cove base installation adhesive—An adhesive intended by the manufacturer to be used for the installation of cove base or wall base on a wall or vertical surface at floor level.

[22./84. Criteria pollutant or standard—*[Air]* Any pollutants for which there is established a NAAQS at 40 CFR 50 and air quality standards have been established in 10 CSR 10-6.010.

[23./85. Crude oil—A naturally-occurring mixture which consists of hydrocarbons and sulfur, nitrogen, or oxygen derivatives, or a combination of these, of hydrocarbons which is a liquid at standard conditions.

[24./86. Custody transfer—The transfer of produced crude oil or condensate, or both, after processing or treating, or both, in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

[25./87. Cutback asphalt—Any asphaltic cement that has been liquefied by blending with VOC liquid diluents.

88. Cyanoacrylate adhesive—An adhesive with a cyanoacrylate content of at least ninety-five percent (95%) by weight.

89. Cyclone boiler—A boiler with a horizontal, cylindrical furnace that burns crushed, rather than pulverized, coal.

90. Cyclone EGU—An electric generating unit (EGU) with a fossil-fuel-fired boiler consisting of one (1) or more horizontal cylindrical barrels that utilize tangentially applied air to produce a swirling combustion pattern of coal and air.

(D) All terms beginning with "D."

1. Data Link Connector (DLC)—The terminal required to be installed on all On-Board Diagnostics (OBD) equipped vehicles that allows communication with a vehicle's OBD system.

2. Day—A period of twenty-four (24) consecutive hours beginning at midnight local time, or beginning at a time consistent with a facility's operating schedule.

[1./3. Degreasing—A solvent metal cleaning in which non-aqueous solvents are used to clean and remove soils from metal surfaces.

[2./4. Delivery vessel—A tank truck, trailer, or railroad tank car.

[3./5. De minimis levels—Any emissions level less than or equal to the rates listed in Table 1, subsection (3)(A) of this rule.

[4./6. Demolition project—The wrecking, razing, burning, or removing of any load-supporting structural member or portion of a

structure together with any related handling operation.

7. Department—The Missouri Department of Natural Resources, which includes the director thereof, or the person or division or program within the department delegated the authority to render the decision, order, determination, finding, or other action that is subject to review by the commission. PO Box 176, Jefferson City, MO 65102.

[5./8. Department-approved inhouse project—An asbestos abatement project in a person's own facility using their own trained facility employees; the project has received departmental approval as part of planned renovation operations.

9. Design capacity—The maximum amount of solid waste the landfill can accept, as indicated in terms of volume or mass in the most recent operating or construction permit issued by the county or state agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than two and one-half (2.5) million megagrams or two and one-half (2.5) million cubic meters, the calculation must include a site-specific density, which must be recalculated annually.

[6./10. Designated representative—A responsible individual authorized by the owner or operator of an affected source and of all affected units at the source, as evidenced by a certificate of representation submitted in accordance with *[subpart B of]* 40 CFR *[part]* 72, **subpart B** to represent and legally bind each owner and operator, as a matter of federal law, in matters pertaining to the *[Acid Rain Program]* acid rain program. Whenever the term "responsible official" is used in 40 CFR *[part]* 70, 10 CSR 10-6.065, or in any other regulations implementing Title V of the Act, it shall be deemed to refer to the "designated representative" with regard to all matters under the *[Acid Rain Program]* acid rain program.

11. Diagnostic Trouble Code (DTC)—An alphanumeric code consisting of five (5) characters which is stored by a vehicle's On-Board Diagnostics system if a vehicle malfunctions or deteriorates in such a way as to potentially raise the vehicle's tailpipe or evaporative emissions more than one and one-half (1.5) times the federal test procedure certification limits. The code indicates the system or component that is in need of diagnosis and repair to prevent the vehicle's emissions from increasing further.

[7./12. Diammonium phosphate—A product resulting from the reaction between phosphoric acid and ammonia having the molecular formula $(\text{NH}_4)_2\text{HPO}_4$.

13. Diesel engine—A compression-ignited (CI) two (2)- or four (4)-stroke engine in which liquid fuel is injected into the combustion chamber and ignited when the air charge has been compressed to a temperature sufficiently high for auto-ignition.

14. Digital printing—A print-on-demand method of printing in which an electronic output device transfers variable data, in the form of an image, from a computer to a variety of substrates. Digital printing methods include, but are not limited to, inkjet printing, electrophotographic printing, dye sublimation printing, thermal wax printing, and solid ink printing.

15. Dioxins/furans—The combined emission of tetra-through octa-chlorinated dibenzo-para-dioxins and dibenzofurans as measured by the U.S. Environmental Protection Agency (EPA) Reference Method 23 of 40 CFR 60, Appendix A-7.

16. Direct emissions—Those emissions of a criteria pollutant or its precursors that are caused or initiated by the federal action and originate in a nonattainment or maintenance area and occur at the same time and place as the action and are reasonably foreseeable.

[8./17. Director or department director—Director of the Missouri Department of Natural Resources, or a designated representative, to carry out the duties as described in section 643.060, RSMo.

[9./18. Dispersion technique—

A. A dispersion technique is any technique designed to affect the concentration of a pollutant in the ambient air by—

(I) Using that portion of a stack which exceeds good engineering practice stack height;

(II) Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant; or

(III) Increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one (1) stack; or other selective handling of exhaust gas streams so as to increase the exhaust gas plume rise; and

B. This definition does not include:

(I) The reheating of a gas stream, following use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharged from the installation generating the gas stream;

(II) The merging of exhaust gas streams where—

(a) The installation owner or operator demonstrates that the installation was originally designed and constructed with the merged gas streams;

(b) After July 8, 1985, the merging is part of a change in operation at the installation that includes the installation of emissions control equipment and is accompanied by a net reduction in the allowable emissions of a pollutant. This exclusion from the definition of dispersion technique shall apply only to the emission limitation for the pollutant affected by a change in operation; or

(c) Before July 8, 1985, the merging was part of a change in operation at the installation that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons. Where there was an increase in the emission limitation or in the event that no emission limitation was in existence prior to the merging, the director shall presume that merging was significantly motivated by an intent to gain emissions credit for greater dispersion. Without a demonstration by the source owner or operator that merging was not significantly motivated by that intent, the director shall deny credit for the effects of merging in calculating the allowable emissions for the source;

(III) Smoke management in agricultural or silvicultural prescribed burning programs;

(IV) Episodic restrictions on residential woodburning and open burning; or

(V) Techniques under part (2)(D)10.A.(III) of this definition which increase final exhaust gas plume rise where the resulting allowable emissions of sulfur dioxide from the installation do not exceed five thousand (5,000) tons per year.

19. Disposal facility—All contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

20. Disposed off-site—Sending used organic solvents or coatings outside of the facility boundaries for disposal.

21. Distillation operation—An operation separating one (1) or more feed stream(s) into two (2) or more exit stream(s), each exit stream having component concentration different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid- and vapor-phase as they approach equilibrium within the distillation unit.

22. Distillation unit—A device or vessel in which distillation operations occur, including all associated internals (such as trays or packing) and accessories (such as reboiler, condenser, vacuum pump, stream jet, etc.), plus any associated recovery system.

[10.]23. Draft permit—The version of a permit for which the permitting authority offers public participation or affected state review.

[11.]24. Drum—Any cylindrical container of thirteen to one hundred ten (13–110)-gallon capacity.

[12.]25. Dry cleaning installation—An installation engaged in the cleaning of fabrics in an essentially nonaqueous solvent by means

of one (1) or more washes in solvent, extraction of excess solvent by spinning and drying by tumbling in an airstream. The installation includes, but is not limited to, any washer, dryer, filter and purification systems, waste disposal systems, holding tanks, pumps, and attendant piping and valves.

26. Dry scrubber—An add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the exhaust stream forming a dry powder material.

27. Dual fuel engine—Compression ignited stationary internal combustion engine that is capable of burning liquid fuel and gaseous fuel simultaneously.

(E) All terms beginning with “E.”

1. Early reduction credit (ERC)—NO_x emission reductions in the years 2000, 2001, 2002, and 2003 that are below the limits specified in subsection (3)(A) of 10 CSR 10-6.350; ERCs will only be available for use during the years of 2004 and 2005. When calculating ERCs or performing calculations involving ERCs, ERCs shall always be rounded down to the nearest ton.

2. Economic benefit—Any monetary gain which accrues to a violator as a result of noncompliance.

3. E85—Ethanol-gasoline blend containing eighty-five percent (85%) denatured ethanol and fifteen percent (15%) gasoline that also meets the standard specification requirements of the most recent update to ASTM D 5798.

4. Electric dissipating coating—A coating that rapidly dissipates a high-voltage electric charge.

5. Electric generating unit (EGU)—Any fossil-fuel-fired boiler or turbine that serves an electrical generator with the potential to use more than fifty percent (50%) of the usable energy from the boiler or turbine to generate electricity.

6. Electric-insulating and thermal conducting coating—A coating that displays an electrical insulation of at least one thousand (1,000) volts DC per mil on a flat test plate and an average thermal conductivity of at least twenty-seven hundredths British thermal units (0.27 Btu) per hour-foot-degree-Fahrenheit.

7. Electric-insulating varnish—A non-convertible-type coating applied to electric motors, components of electric motors, or power transformers, to provide electrical, mechanical, and environmental protection or resistance.

8. Electrodeposition primer (EDP)—A protective, corrosion-resistant waterborne primer on exterior and interior surfaces that provides thorough coverage of recessed areas. It is a dip coating method that uses an electrical field to apply or deposit the conductive coating onto the part. The object being painted acts as an electrode that is oppositely charged from the particles of paint in the dip tank.

9. Electronic component—All portions of an electronic assembly, including, but not limited to, circuit board assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and associated electronic component manufacturing equipment such as screens and filters.

10. Electrostatic preparation coat—A coating that is applied to a plastic part solely to provide conductivity for the subsequent application of a prime, topcoat, or other coating through the use of electrostatic application methods. An electrostatic preparation coat is clearly identified as an electrostatic preparation coat on its material safety data sheet.

11. Emergency—A situation where extremely quick action on the part of the federal agencies involved is needed and where the timing of such federal activities makes it impractical to meet the requirements of 10 CSR 10-6.300, such as natural disasters like hurricanes or earthquakes, civil disturbances such as terrorist acts, and military mobilizations.

[1.]12. Emergency asbestos abatement project—An asbestos abatement project that must be undertaken immediately to prevent imminent severe human exposure or to restore essential facility operation.

13. EMI/RFI shielding—A coating used on electrical or electronic equipment to provide shielding against electromagnetic interference (EMI), radio frequency interference (RFI), or static discharge.

[2./14. **Emission**—The release or discharge, whether directly or indirectly, into the atmosphere of one (1) or more air contaminants.

15. Emission data—

A. The identity, amount, frequency, concentration, or other characteristics (related to air quality) of any air contaminant which—

(I) Has been emitted from an emission unit;

(II) Results from any emission by the emissions unit;

(III) Under an applicable standard or limitation, the emissions unit was authorized to emit; or

(IV) Is a combination of any of the parts (2)(E)15.A.(I), (II), or (III) of this rule;

B. The name, address (or description of the location), and the nature of the emissions unit necessary to identify the emission units including, a description of the device, equipment, or operation constituting the emissions unit; and

C. The results of any emission testing or monitoring required to be reported under any rules of the commission.

16. Emission events—Discrete venting episodes that may be associated with a single unit of operation.

17. Emission Inventory—A listing of information on the location, type of source, type and quantity of pollutant emitted, as well as other parameters of the emissions;

[3./18. **Emission limitation**—A regulatory requirement, permit condition, or consent agreement which limits the quantity, rate, or concentration of emissions on a continuous basis, including any requirement which limits the level of opacity, prescribes equipment, sets fuel specifications, or prescribes operation or maintenance procedures for an installation to assure continuous emission reduction.

19. Emission offsets—Emissions reductions which are quantifiable, consistent with the applicable implementation plan attainment and reasonable further progress demonstrations, surplus to reductions required by, and credited to, other applicable implementation plan provisions, enforceable under both state and federal law, and permanent within the time frame specified by the program. Emissions reductions intended to be achieved as emissions offsets must be monitored and enforced in a manner equivalent to that under EPA's new source review requirements.

20. Emission rate cutoff—The threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the applicable regulation is required.

21. Emission reduction credit (ERC)—A certified emission reduction that is created by eliminating future emissions and expressed in tons per year. One (1) ERC is equal to one (1) ton per year. An ERC must be real, properly quantified, permanent, and surplus.

22. Emissions—Air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the administrator by the NO_x authorized account representative and as determined by the administrator.

23. Emissions budgets—Those portions of the total allowable emissions defined in an EPA-approved revision to the applicable implementation plan for a certain date for the purpose of meeting reasonable further progress milestones or attainment or maintenance demonstrations, for any criteria pollutant or its precursors, specifically allocated by the applicable implementation plan to mobile sources, to any stationary source or class of stationary sources, to any federal action or class of action, to any class of area sources, or to any subcategory of the emissions inventory. The allocation system must be specific enough to assure meeting the criteria of section 176(c)(1)(B) of the CAA. An emissions budget may be expressed in terms of an annual period,

a daily period, or other period established in the applicable implementation plan.

24. Emissions inspection—Tests performed on a vehicle in order to evaluate whether the vehicle's emissions control components are present and properly functioning.

[4./25. **Emissions unit**—Any part or activity of an installation that emits or has the potential to emit any regulated air pollutant or any pollutant listed under section 112(b) of the Act. This term is not meant to alter or affect the definition of the term unit for the purposes of Title IV of the Act. **For the purpose of 10 CSR 10-6.410 only, emissions unit is any part of a source or activity at a source that emits or would have the potential to emit criteria pollutants or their precursors.**

[5./26. **Emulsified asphalt**—An emulsion of asphalt cement and water that contains a small amount of an emulsifying agent, as specified in ASTM D (977-77) or ASTM D (2397-73).

[6./27. **Enamel**—A surface coating that is a mixture of paint and varnish, having vehicles similar to those used for varnish, but also containing pigments.

28. Enclosed combustor—An enclosed firebox which maintains a relatively-constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

29. End exterior coating—A coating applied to the exterior end of a can to provide protection to the metal.

[7./30. **End seal compound**—The gasket forming coating used to attach the end pieces of a can during manufacturing or after filling with contents.

31. Energized electrical system—Any alternating current (AC) or direct current (DC) electrical circuit on an assembled aircraft once electrical power is connected, including interior passenger and cargo areas, wheel wells, and tail sections.

32. Energy Information Administration—The Energy Information Administration of the United States Department of Energy.

33. Engine rating—The output of an engine as determined by the engine manufacturer and listed on the nameplate of the unit, regardless of any derating.

[8./34. **Equipment**—Any item that is designed or intended to perform any operation and includes any item attached to it to assist in the operation.

35. EPA—The U.S. Environmental Protection Agency.

36. EPDM roof membrane—A prefabricated single sheet of elastomeric material composed of ethylene propylene diene monomer (EPDM) and that is field-applied to a building roof using one (1) layer or membrane material.

37. Equipment leak—Emissions of volatile organic compounds from pumps, valves, flanges, or other equipment used to transfer or apply finishing materials or organic solvents.

38. Equivalent method—Any method of sampling and analyzing for an air pollutant that has been demonstrated to the director's satisfaction to have a consistent and quantitatively-known relationship to the reference method under specific conditions.

39. Etching filler—A coating for metal that contains less than twenty-three percent (23%) solids by weight and at least one-half percent (0.5%) acid by weight, and is used instead of applying a pretreatment coating followed by a primer.

[9./40. **Excess emissions**—The emissions which exceed the requirements of any applicable emission control regulation.

[10./41. **Excessive concentration**—

A. For installations seeking credit for reduced ambient pollutant concentrations from stack height exceeding that defined in subparagraph [(2)(G)3.B.](2)(G)15.B. of this rule an excessive concentration is a maximum ground level concentration due to emissions from a stack due in whole or part to downwash, wakes, or eddy effects produced by nearby structures or nearby terrain features which are at least forty percent (40%) in excess of the maximum

concentration experienced in the absence of the downwash, wakes, or eddy effects, and that contributes to a total concentration due to emissions from all installations that is greater than an ambient air quality standard. For installations subject to the prevention of significant deterioration program as set forth in 10 CSR 10-6.060(8), an excessive concentration means a maximum ground level concentration due to emissions from a stack due to the same conditions as mentioned previously and is greater than a prevention of significant deterioration increment. The allowable emission rate to be used in making demonstrations under this definition shall be prescribed by the new source performance regulation as referenced by 10 CSR 10-6.070 for the source category unless the owner or operator demonstrates that this emission rate is infeasible. Where demonstrations are approved by the director, an alternative emission rate shall be established in consultation with the source owner or operator;

B. For installations seeking credit after October 11, 1983, for increases in stack heights up to the heights established under subparagraph [(2)(G)3.B.] (2)(G)15.B. of this rule, an excessive concentration is either—

(I) A maximum ground level concentration due in whole or part to downwash, wakes, or eddy effects as provided in subparagraph [(2)(E)10.A.] (2)(E)41.A. of this rule, except that the emission rate used shall be the applicable emission limitation (or, in the absence of this limit, the actual emission rate); or

(II) The actual presence of a local nuisance caused by the stack, as determined by the director; and

C. For installations seeking credit after January 12, 1979, for a stack height determined under subparagraph [(2)(G)3.B.] (2)(G)15.B. of this rule where the director requires the use of a field study of fluid model to verify good engineering practice stack height, for installations seeking stack height credit after November 9, 1984, based on the aerodynamic influence of cooling towers and for installations seeking stack height credit after December 31, 1970, based on the aerodynamic influence of structures not represented adequately by the equations in subparagraph [(2)(G)3.B.] (2)(G)15.B. of this rule, a maximum ground level concentration due in whole or part to downwash, wakes, or eddy effects that is at least forty percent (40%) in excess of the maximum concentration experienced in the absence of downwash, wakes, or eddy effects.

[11.]42. Existing—As applied to any equipment, machine, device, article, contrivance, or installation shall mean in being, installed, or under construction in the Kansas City metropolitan area on September 25, 1968 (Buchanan County, January 21, 1970), in the St. Louis metropolitan area on March 24, 1967 (Franklin County, January 18, 1972), in the Springfield metropolitan area on September 24, 1971, and in the outstate Missouri area on February 24, 1971, except that if equipment, machine, device, article, contrivance, or installation subsequently is altered, repaired, or rebuilt at a cost of fifty percent (50%) or more of its replacement cost exclusive of routine maintenance, it shall no longer be existing[,/] but shall be considered new as defined in this regulation. The cost of installing equipment designed principally for the purpose of air pollution control is not to be considered a cost of altering, repairing, or rebuilding existing equipment for the purpose of this definition. **For the purpose of 10 CSR 10-2.040 and 10 CSR 10-5.030 only, existing is any source which was in being, installed, or under construction on February 15, 1979, except that if any source subsequently is altered, repaired, or rebuilt at a cost of thirty percent (30%) or more of its replacement cost, exclusive of routine maintenance, it shall no longer be existing but shall be considered as new.**

[12.]43. Exterior coating (two (2)-piece)—A surface coating used to coat the outside face of a two (2)-piece can. Used to provide protection from the lithograph or printing operations.

[13.]44. External floating roof—A storage vessel cover in an open top tank consisting of a double-deck or pontoon single deck which rests upon and is supported by petroleum liquid being contained and is equipped with a closure seal(s) to close the space between the roof edge and tank wall.

[14.]45. Extreme environmental conditions—The exposure to any of[—] the weather all of the time, temperatures consistently above ninety-five degrees Celsius (95 °C), detergents-abrasive and scouring agents, solvents, corrosive atmospheres, or similar environmental conditions.

46. Extreme high gloss coating—A coating applied to—

A. Pleasure craft which, when tested by the ASTM Test Method D-523-89, shows a reflectance of ninety percent (90%) or more on a sixty-degree (60°) meter; or

B. Metal and plastic parts that are not components of pleasure craft, which, when tested by the ASTM Test Method D-523 adopted in 1980, shows a reflectance of seventy-five percent (75%) or more on a sixty-degree (60°) meter.

47. Extreme performance coating—A coating used on a metal or plastic surface where the coated surface is, in its intended use, subject to the following:

A. Chronic exposure to corrosive, caustic, or acidic agents, chemicals, chemical fumes, chemical mixtures, or solutions;

B. Repeated exposure to temperatures in excess of two hundred fifty degrees Fahrenheit (250 °F); or

C. Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers, or scouring agents.

(F) All terms beginning with “F.”

1. Fabric coating—A coating applied to a textile substrate by dipping or by means of a knife or roll.

2. Fabric filter or baghouse—An add-on air pollution control system that removes particulate matter and nonvaporous metals emissions by passing flue gas through filter bags.

3. Facilities manager—The individual in charge of purchasing, maintaining, and operating the HMIWI or the owner's or operator's representative responsible for the management of the HMIWI. Alternative titles may include director of facilities or vice president of support services.

4. Federal action—Any activity engaged in by a department, agency, or instrumentality of the federal government, or any activity that a department, agency, or instrumentality of the federal government supports in any way, provides financial assistance for, licenses, permits, or approves, other than activities related to transportation plans, programs, and projects developed, funded, or approved under Title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.). Where the federal action is a permit, license, or other approval for some aspect of a nonfederal undertaking, the relevant activity is the part, portion, or phase of the nonfederal undertaking that requires the federal permit, license, or approval.

5. Federal agency—A federal department, agency, or instrumentality of the federal government.

[1.]6. Federally enforceable—All limitations and conditions which are enforceable by the administrator, including those requirements developed pursuant to 40 CFR [parts] 55, 60, 61, and 63; requirements within any applicable state implementation plan; requirements in operating permits issued pursuant to 40 CFR [parts] 70 or 71, unless specifically designated as non-federally enforceable; and any permit requirements established pursuant to 40 CFR [sections] 52.10, 52.21, or [part] 55, or under regulations approved pursuant to 40 CFR [part] 51, subpart I, including operating permits issued under an EPA-approved program that is incorporated into the state implementation plan and expressly requires adherence to any permit issued under such program.

7. Fill capacity—The maximum amount of wood that can be properly loaded into a charcoal kiln prior to the burn cycle.

[2.]8. Final permit—The version of a part 70 permit issued by the permitting authority that has completed all review procedures as required in [part 70 sections] 40 CFR 70.7 and 70.8.

[3.]9. Final repair—The final coatings applied to correct topcoat imperfections after the complete assembly of the automobile.

10. **Finish foil mill**—Batch process aluminum foil rolling mill with work rolls in contact to reduce foil gauge. This process reduces intermediate foil and in some cases finished sheet to final gauges. A finish foil mill is used mainly in the production of aluminum foil at gauges between 0.005 inches to 0.00018 inches. Reductions to finish gauge may occur in several passes through the mill.

11. **Finish primer/surfacer**—A coating applied to pleasure craft with a wet film thickness of less than ten (10) mils prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier, or promotion of a uniform surface necessary for filling in surface imperfections.

12. **Finishing application station**—The part of a finishing operation where the finishing material is applied, e.g., a spray booth.

13. **Finishing material**—A coating used in the wood furniture industry. For the purpose of 10 CSR 10-5.530, such materials include, but are not limited to, basecoats, stains, washcoats, sealers, and topcoats.

14. **Finishing operation**—Those activities in which a finishing material is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

[4./15. **Firebox**—The chamber or compartment of a boiler or furnace in which materials are burned but does not mean the combustion chamber of an incinerator.

16. **Flame zone**—The portion of the combustion chamber in a boiler occupied by the flame envelope.

17. **Flare**—An open combustor without enclosure or shroud.

[5./18. **Flash off area**—The space between the application area and the oven.

19. **Flexible coating**—A coating that is required to comply with engineering specifications for impact resistance, mandrel bend, or elongation as defined by the original equipment manufacturer.

20. **Flexible package printing**—The application of a coating, or the performance of a graphic arts operation, to flexible packaging. The printing processes used for flexible package printing are rotogravure and flexography. The printing of shrink-wrap labels or wrappers conducted on or in-line with a flexible package printing press is flexible package printing. The printing of self-adhesive labels is not flexible package printing.

21. **Flexible packaging**—Any package or part of a package the shape of which can be readily changed. Flexible packaging includes, but is not limited to, bags, pouches, liners, and wraps utilizing paper, plastic, film, aluminum foil, metallized or coated paper or film, or any combination of these materials.

22. **Flexible vinyl**—Non-rigid polyvinyl chloride plastic with at least five percent (5%) by weight plasticizer content.

[6./23. **Flexographic printing**—The application of words, designs, and pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.

24. **Flow indicator**—A device that indicates whether gas flow is present in a vent stream.

25. **Flush cleaning**—The removal of contaminants such as dirt, grease, and coatings from a vehicle, component, or coating equipment by passing solvent over, into, or through the item being cleaned. The solvent may simply be poured into the item cleaned and then drained, or be assisted by air or hydraulic pressure, or by pumping. The solvent drained from the item may be assisted by air, compressed gas, hydraulic pressure, or pumping. Hand-wipe cleaning operations where wiping, scrubbing, mopping, or other hand actions are used are not included in this definition. Flush cleaning does not include spray gun cleaning.

26. **Fog coat**—A coating that is applied to a plastic part for the purpose of color matching without masking a molded-in texture.

27. **Food service establishment**—Any fixed or mobile restaurant; coffee shop; cafeteria; short order cafe; luncheonette; grill; tearoom; sandwich shop; soda fountain; tavern; bar; cocktail lounge; night club; roadside stand; industrial feeding establishment; private, public, or nonprofit organization or institution routinely serving food; catering kitchen, commissary, or similar place in which food or drink is placed for sale or for service on the premises or elsewhere; and any other eating or drinking establishment or operation where food is served or provided for the public with or without charge.

28. **Fossil-fuel**—Natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material.

29. **Fossil-fuel-fired**—With regard to a unit, the combustion of fossil fuel, alone or in combination with any other fuel, where fossil fuel is projected to comprise more than fifty percent (50%) of the annual heat input. For the purpose of 10 CSR 10-6.360 only, fossil-fuel-fired, with regard to a unit, is the combustion of fossil fuel, alone or in combination with any other fuel, where fossil fuel—

A. Actually combusted comprises more than fifty percent (50%) of the annual heat input on a Btu basis during any year starting in 1995 or, if a unit had no heat input starting in 1995, during the last year of operation of the unit prior to 1995; or

B. Is projected to comprise more than fifty percent (50%) of the annual heat input on a Btu basis during any year; provided that the unit shall be “fossil-fuel-fired” as of the date, during such year, on which the unit begins combusting fossil fuel.

30. **Fountain solution**—The solution which is applied to the image plate to maintain the hydrophilic properties of the nonimage areas. It is primarily water containing an etchant, a gum arabic, and a dampening aid (commonly containing alcohol and alcohol substitutes).

31. **Freeboard area**—The air space in a batch-load cold cleaner that extends from the liquid surface to the top of the tank.

[7./32. **Freeboard height**—*[The distance from the solvent (cold cleaner) or solvent vapor level (vapor degreaser) to the top edge of the solvent container.]*

A. The distance from the top of the solvent to the top of the tank for batch-loaded cold cleaners;

B. The distance from the air-vapor interface to the top of the tank for open-top vapor degreasers; or

C. The distance from either the air-solvent or air-vapor interface to the top of the tank for conveyorized degreasers.

[8./33. **Freeboard ratio**—The freeboard height divided by the smaller of either the inside length or inside width of the degreaser.

[9./34. **Friable asbestos-containing material**—Any material that contains more than one percent (1%) asbestos, by weight, which is applied to ceilings, walls, structural members, piping, ductwork, or any other part of a building or facility and which, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure.

[10./35. **Fugitive emissions**—Those emissions which according to good engineering practice could not pass through a stack, chimney, vent, or other functionally-equivalent opening.

(G) All terms beginning with “G.”

1. **Gas mover equipment**—The equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

2. **Gas volatile organic compounds (VOC) service**—A component that contacts a process fluid containing ten percent (10%) or greater VOC by weight that is in a gaseous state at operating conditions.

[1./3. **Gasoline**—A petroleum liquid having a Reid vapor pressure four pounds (4 lbs./.) per square inch or greater.

4. Gasoline dispensing facility—Any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle.

5. Gasoline distribution facility—Any stationary facility which transfers, loads, and/or unloads gasoline, including but not limited to gasoline bulk terminals, bulk plants, and pipeline facilities, that also does not meet the definition of a gasoline dispensing facility.

6. Gaseous fuel—A combustible gas that includes, but is not limited to, natural gas, landfill gas, coal-derived gas, refinery gas, and biogas. Blast furnace gas is not considered a gaseous fuel under this definition.

7. General account—A NO_x allowance tracking system account that is not a compliance account or an overdraft account.

8. General aviation—Segment of civil aviation that encompasses all facets of aviation except air carriers, commuters, and military. General aviation includes charter and corporate-executive transportation, instruction, rental, aerial application, aerial observation, business, pleasure, and other special uses.

9. General aviation rework facility—Any aerospace installation with the majority of its revenues resulting from the reconstruction, repair, maintenance, repainting, conversion, or alteration of general aviation aerospace vehicles or components.

10. Generating activity—Any process modification that results in a permanent reduction in emissions.

11. Generator—A device that produces electricity.

12. Generator source—Any source that generates an ERC.

13. Gloss reducer—A coating that is applied to a plastic part solely to reduce the shine of the part.

[2.]/14. Glove bag—A manufactured or fabricated device, typically constructed of six (6) mil transparent polyethylene or polyvinyl chloride plastic. This device consists of two (2) inward projecting long sleeves, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The bags are especially designed to contain sections of pipe for the purpose of removing a short length of damaged asbestos material without releasing fibers into the air.

[3.]/15. Good engineering practice (GEP) stack height—GEP stack height means the greater of—

A. Sixty-five meters (65 m), measured from the ground level elevation at the base of the stack;

B. For stacks on which construction commenced on or before January 12, 1979, and for which the owner or operator had obtained all applicable permits or approvals required under 40 CFR [parts] 51 and 52,

$$\text{Hg} = 2.5\text{H}$$

provided the owner or operator produces evidence that this equation was actually relied on in establishing an emission limitation; and for all other stacks,

$$\text{Hg} = \text{H} + 1.5\text{L}$$

Where:

Hg = GEP stack height, measured from the ground level elevation at the base of the stack;

H = height of nearby structure(s) measured from the ground level elevation at the base of the stack; and

L = lesser dimension, height, or projected width of the nearby structure(s). Provided that the director may require the use of a field study or fluid model to verify GEP stack height for the installation; or

C. The height demonstrated by a fluid model or field study approved by the director, which ensures that the emissions from a stack do not result in excessive concentrations of any air pollutant as result of atmospheric downwash, wakes, or eddy effects created by the source itself, nearby structures, or nearby terrain features.

16. Gravity-based assessment—The degree of seriousness of a violation taking into consideration the risk to human health

and the environment posed by the violation and considering the extent of deviation from sections 643.010–643.250, RSMo.

17. Greenfield site—A contiguous area under common control that is an undeveloped site.

18. Gross vehicle weight rating (GVWR)—The value specified by the manufacturer as the maximum design loaded weight of a single vehicle.

19. Ground-level ozone—A colorless, odorless gas formed by the mixing of volatile organic compounds and oxides of nitrogen from stationary and mobile pollution sources in the presence of heat and sunlight. Ground-level ozone is a strong oxidizer that negatively affects human health by causing diminished lung function in both healthy individuals and those with pre-existing respiratory problems.

[4.]/20. Growth increment—The limit on new installation or major modification emissions of a nonattainment pollutant. Growth increment is reserved for use only by installations with no applicable, internally-generated, banked emissions reductions.

(H) All terms beginning with “H.”

1. Halogenated vent stream—Any vent stream determined to have a total concentration of halogen atoms (by volume) contained in organic compounds of two hundred (200) parts per million by volume or greater determined by Method 18 of 40 CFR 60, Appendix A, or other test or data validated by Method 301 of 40 CFR 63, Appendix A, or by engineering assessment or process knowledge that no halogenated organic compounds are present. For example, one hundred fifty (150) parts per million by volume of ethylene dichloride would contain three hundred (300) parts per million by volume of total halogen atoms.

2. Hand cleaning/wiping operation—The removal of contaminants, such as dirt, grease, oil, and coatings, from a surface by physically rubbing it with a material such as a rag, paper, or cotton swab that has been moistened with a cleaning solvent.

3. Hand-fired fuel-burning equipment—Any stove, furnace, or other fuel-burning device in which fuel is manually introduced directly into the combustion chamber.

4. Hardboard—A panel manufactured primarily from inter-felted lignocellulosic fibers that are consolidated under heat and pressure in a hot press.

5. Hardwood particleboard—A manufactured board one-fourth inch (1/4") or less in thickness made of individual wood particles that have been coated with a binder and formed into flat sheets by pressure.

[1.]/6. Hazardous air pollutant—Any of the air pollutants listed in subsection (3)(C) of this rule.

[2. HHV—A higher heating value as determined by 10 CSR 10-6.040(2) (ASTM Standard: D 2015-66, Part 19, 1972, Standard Method for Determining Gross Heating Values of Solid Fuels).]

7. Hearing—Any presentation to, or consideration by the hearing officer of evidence or argument on a petition seeking the commission's review of an action by the department.

8. Hearing officer—A person appointed by the Administrative Hearing Commission.

9. Heat input—The product (in mmBtu/time) of the gross calorific value of the fuel (in Btu/lb) and the fuel feed rate into a combustion device (in mass of fuel/time), as measured, recorded, and reported to the administrator by the NO_x authorized account representative and as determined by the administrator in accordance with the approved process, and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

10. Heat resistant coating—A coating that must withstand a temperature of at least four hundred degrees Fahrenheit (400 °F) during normal use.

11. Heatset—A class of web-offset lithographic and letterpress printing in which the setting of the printing inks requires a heated dryer to evaporate the ink oils. The setting or curing of

inks using only radiation (e.g., infrared, ultraviolet light, or electron beam) is not heatset and is classified as non-heatset.

12. Heavy duty diesel vehicle—A vehicle that—

A. Has a gross vehicle weight rating greater than ten thousand pounds (10,000 lbs);

B. Is powered by a diesel engine; and

C. Is designed primarily for transporting persons or property on a public street or highway.

13. Heavy duty vehicle (HDV)—Any motor vehicle rated at eight thousand five hundred one pounds (8,501 lbs) GVWR or more.

14. High-air phase—The stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

15. High-bake coating—A coating which is designed to cure only at temperatures of more than one hundred ninety-four degrees Fahrenheit (194 °F).

16. High-build primer/surfacer—A coating applied to pleasure craft with a wet film thickness of ten (10) mils or more prior to the application of a topcoat for purposes of providing a moisture barrier, corrosion resistance, adhesion of subsequent coatings, or promoting a uniform surface necessary for filling in surface imperfections.

17. High-gloss coating—A coating applied to pleasure craft which, when tested by the ASTM Test Method D-523-89, shows a reflectance of eighty-five percent (85%) or more on a sixty-degree (60°) meter.

18. High-performance architectural coating—A coating used to protect architectural subsections and which meets the requirements of the Architectural Aluminum Manufacturer Association's publication number AAMA 2604-05, Voluntary Specification, Performance Requirements, and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels or AAMA 2605-05, Voluntary Specification, Performance Requirements, and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.

19. High-temperature coating—A coating that is certified to withstand a temperature of one thousand degrees Fahrenheit (1,000 °F) for twenty-four (24) hours.

[3./20. High terrain—Any area having an elevation nine hundred feet (900') or more above the base of the stack of the installation.

21. High-volume low-pressure (HVLP) spray equipment—Spray equipment that is used to apply coating by means of spray gun that operates at ten pounds per square inch gauge (10.0 psig) of atomizing air pressure or less at the air cap.

22. Higher heating value (HHV)—The total heat liberated per mass of fuel burned in British thermal units (Btu) per pound, when fuel and dry air at standard conditions undergo complete combustion and all resultant products are brought to their standard states at standard conditions. It can be determined by 10 CSR 10-6.040(2) (ASTM Standard: D 2015-66, Part 19, 1972, *Standard Method for Determining Gross Heating Values of Solid Fuels*). For the purpose of 10 CSR 10-6.390 only, if certification of the HHV is not provided by the third party fuel supplier, it shall be determined by one (1) of the following test methods: ASTM D2015-85 for solid fuels; ASTM D240-87 or ASTM D2382-88 for liquid hydrocarbon fuels; or ASTM D1826-88 or ASTM D1945-81 in conjunction with ASTM D3588-89 for gaseous fuels.

23. HMIWI operator—Any person who operates, controls, or supervises the day-to-day operation of an HMIWI.

24. Hospital—Any facility which has an organized medical staff, maintains at least six (6) inpatient beds, and where the primary function of the institution is to provide diagnostic and therapeutic patient services and continuous nursing care primarily to human inpatients who are not related and who stay on average in

excess of twenty-four (24) hours per admissions. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill but who require continuing medical supervision.

25. Hospital/medical/infectious waste incinerator (HMIWI) or HMIWI unit—Any device that combusts any amount of hospital waste and/or medical/infectious waste.

26. Hospital waste—Discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

[4./27. Hot car—A vehicle which transfers hot coke from the oven to the area of quenching.

28. Household waste—Any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

(I) All terms beginning with "I."

1. Idling—The operation of an engine where the engine is not engaged in gear.

[7./2. Incinerator—Any article, machine, equipment, contrivance, structure, or part of a structure used to burn refuse or to process refuse material by burning other than by open burning as defined in this rule. For the purpose of 10 CSR 10-5.530 only, incinerator is an enclosed combustion device that thermally oxidizes volatile organic compounds to carbon monoxide (CO) and carbon dioxide (CO₂). This term does not include devices that burn municipal or hazardous waste material. For the purpose of 10 CSR 10-5.550 only, incinerator is any enclosed combustion device that is used for destroying organic compounds. Auxiliary fuel may be used to heat waste gas to combustion temperatures. Any energy recovery section present is not physically formed into one (1) section; rather, the energy recovery system is a separate section following the combustion section and the two (2) are joined by ducting or connections that carry fuel gas.

3. Increase the frequency or severity of any existing violation of any standard in any area—To cause a nonattainment area to exceed a standard more often or to cause a violation at a greater concentration than previously existed or would otherwise exist during the future period in question, if the project were not implemented.

4. Indirect emissions—Those emissions of a criteria pollutant or its precursors—

A. That are caused or initiated by the federal action and originate in the same nonattainment or maintenance area but may occur at a different time or place;

B. That are reasonably foreseeable;

C. That the agency can practically control;

D. That which the agency has continuing program responsibility; and

E. That the federal agency can practically control and will maintain control due to a continuing program responsibility of the federal agency, including, but not limited to—

(I) Traffic on or to, or stimulated or accommodated by, a proposed facility which is related to increases or other changes in the scale or timing of operations of such facility;

(II) Emissions related to the activities of employees of contractors or federal employees;

(III) Emissions related to employee commutation and similar programs to increase average vehicle occupancy imposed on all employers of a certain size in the locality; or

(IV) Emissions related to the use of federal facilities under lease or temporary permit.

For the purposes of this definition, even if a federal licensing, rulemaking, or other approving action is a required initial step

for a subsequent activity that causes emissions, such initial steps do not mean that a federal agency can practically control any resulting emissions.

[2./5. Indirect heating source—A source operation in which fuel is burned for the primary purpose of producing steam, hot water, or hot air, or other indirect heating of liquids, gases, or solids where, in the course of doing so, the products of combustion do not come into direct contact with process materials.

6. Indoor floor covering installation adhesive—An adhesive intended by the manufacturer for use in the installation of wood flooring, carpet, resilient tile, vinyl tile, vinyl-backed carpet, resilient sheet, and roll or artificial grass. Adhesives used to install ceramic tile and perimeter bonded sheet flooring with vinyl backing onto a non-porous substrate, such as flexible vinyl, are excluded from this category.

7. Industrial boiler—A boiler used in manufacturing, processing, mining, and refining, or any other industry to provide steam, hot water, and/or electricity.

8. Industrial solid waste—Solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, 40 CFR 264 and 265. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

9. Industrial surface coating operation—The surface coating of manufactured items intended for distribution in commerce to persons other than the person or legal entity performing the surface coating.

10. Infectious agent—Any organism (such as a virus or bacteria) that is capable of being communicated by invasion and multiplication in body tissues and capable of causing disease or adverse health impacts in humans.

11. Initial emissions inspection—An emissions inspection consisting of the inspection series that occurs the first time a vehicle is inspected in a compliance cycle.

12. Initial fueling of motor vehicles—The operation, including related equipment, of dispensing gasoline fuel into a newly-assembled motor vehicle equipped with ORVR at an automobile assembly plant while the vehicle is still being assembled on the assembly line. Newly-assembled motor vehicles being fueled on the assembly line shall be equipped with ORVR and have fuel tanks that have never before contained gasoline fuel.

13. Ink formulation as applied—The base graphic arts coating and any additives such as thinning solvents to make up the ink material that is applied to a substrate.

14. In-line repair—The operation performed and coating(s) applied to correct damage or imperfections in the topcoat on parts that are not yet on a completely-assembled vehicle. The curing of the coatings applied in these operations is accomplished at essentially the same temperature as that used for curing the previously-applied topcoat. Also referred to as high-bake repair or high-bake reprocess and is considered part of the topcoat operation.

[3./15. Innovative control technology—Any system of air pollution control that has not been adequately demonstrated in practice but would have a substantial likelihood of achieving greater continuous emission reduction than any control system in current practice or of achieving at least comparable reductions at lower cost in terms of energy, economics, or non-air quality environmental impacts.

[4./16. Insignificant activity—An activity or emission unit in which the only applicable requirement would be to list the requirement in an operating permit application under 10 CSR 10-6.065 and is either of the following:

A. Emission units whose aggregate emission levels for the installation do not exceed that of the *de minimis* levels; and

B. Emission units or activities listed in 10 CSR 10-6.061 as exempt or excluded from construction permit review under 10 CSR 10-6.060.

[5./17. Inspector—An individual, under AHERA, who collects and assimilates information used to determine whether asbestos-containing material is present in a building or other air contaminant sources.

[6./18. Installation—All source operations including activities that result in fugitive emissions, that belong to the same industrial grouping (that have the same two (2)-digit code as described in the *Standard Industrial Classification Manual*, 1987), and any marine vessels while docked at the installation, located on one (1) or more contiguous or adjacent properties and under the control of the same person (or persons under common control).

19. Institutional cleaning—Cleaning activities conducted at organizations, societies, or corporations including but not limited to schools, hospitals, sanitariums, and prisons.

20. Institutional Vehicle—Any motor vehicle, other than a passenger vehicle, and any trailer, semitrailer, or pole trailer drawn by such a motor vehicle, that is designed, used, and maintained for the transportation of persons or property for an establishment, foundation, society, or the like, devoted to the promotion of a particular cause or program, especially one of a public, educational, or charitable character.

[7./21. Interior body spray (two (2)- and three (3)-piece)—The surface coating for the interior and ends of a two (2)-piece formed can or the surface coating of the side of the rectangular material to be used as the interior and ends of a three (3)-piece can.

22. Interior well—Any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfill waste is not an interior well.

23. Intermediate foil mill—Batch process aluminum foil rolling mill with the work rolls in contact to reduce foil gauge. This process reduces finished sheet to intermediate foil gauges. An intermediate foil mill is used mainly in the production of aluminum foil at gauges between 0.010 inches to 0.0004 inches. Reductions to finish gauge may occur in several passes through the mill.

24. Intermediate installations—Part 70 installations that become basic state installations based on their potential to emit by accepting the imposition of voluntarily-agreed-to federally-enforceable limitations on the type of materials combusted or processed, operating rates, hours of operation, or emission rates more stringent than those otherwise required by rule or regulation.

25. Intermittent HMIWI—An HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

26. Internal combustion engine—Any engine in which power, produced by heat and/or pressure developed in the engine cylinder(s) by burning a mixture of fuel and air, is subsequently converted to mechanical work by means of one (1) or more pistons.

[8./27. Internal floating roof—A product cover in a fixed roof tank which rests upon or is floated upon the VOC liquid being contained and which is equipped with a sliding seal(s) to close the space between the edge of the covers and tank shell.

[9./28. Inventory—A quantification of emissions by installation and by source operation.

(J) All terms beginning with "J."

1. Janitorial cleaning—The cleaning of building or facility components such as the floors, ceilings, walls, windows, doors, stairs, bathrooms, kitchens, etc. in nonmanufacturing areas.

2. Jet engine test cell—A stationary jet engine used for the purpose of research and testing.

3. Jobbing cupola—A cupola which has a single melting cycle operated no more than ten (10) hours in any consecutive twenty-four (24) hours and no more than fifty (50) hours in any consecutive seven (7) days.

(L) All terms beginning with “L.”

1. Lacquers—A surface coating that is basically solutions of nitrocellulose in VOCs, with plasticizers and other resins added to improve the quality of the film.

2. Laminate—A product made by bonding together two (2) or more layers of material.

3. Landfill—An area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under 40 CFR 257.2.

4. Large HMIWI—An HMIWI whose maximum design waste burning capacity is more than five hundred pounds (500 lbs) per hour, or a continuous or intermittent HMIWI whose maximum charge rate is more than five hundred pounds (500 lbs) per hour, or a batch HMIWI whose maximum charge rate is more than four thousand pounds (4,000 lbs) per day. The following are not large HMIWI: a continuous or intermittent HMIWI whose maximum charge rate is less than or equal to five hundred pounds (500 lbs) per hour; or a batch HMIWI whose maximum charge rate is less than or equal to four thousand pounds (4,000 lbs) per day.

5. Lateral expansion—A horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

6. Lean-burn engine—Any two (2)- or four (4)-stroke spark-ignited (SI) engine with greater than four percent (4%) oxygen in the engine exhaust.

7. Letterpress printing—A printing process in which the image area is raised relative to the non-image area, and the ink is transferred to the substrate directly from the image surface.

8. Licensed emissions inspection station—Any business that has met the licensing requirements as specified and been licensed to offer vehicle emissions inspection services on behalf of the department.

9. Licensed emissions inspector—Any individual that has met the licensing requirements as specified and been licensed to conduct vehicle emissions inspections on behalf of the department.

10. Life-of-the-unit, firm power contractual arrangement—A unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and associated energy from any specified unit and pays its proportional amount of such unit's total costs, pursuant to a contract—

A. For the life of the unit;

B. For a cumulative term of no less than thirty (30) years, including contracts that permit an election for early termination; or

C. For a period equal to or greater than twenty-five (25) years or seventy percent (70%) of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.

[2./11. Light/- duty truck (LDT)—Any motor vehicle rated at eight thousand five hundred pounds (8,500 lbs./.) gross weight or less *[or a derivation of this vehicle which is designed primarily for the purpose of transportation of property]*, and which has a basic vehicle frontal area of forty-five (45) square feet or less, which is—

A. Designed primarily for purposes of transportation of property or is a derivation of such a vehicle;

B. Designed primarily for transportation of persons and has a capacity of more than twelve (12) persons; or

C. Available with special features enabling off-street or off-highway operation and use.

12. Light duty vehicle (LDV)—A passenger car or passenger car derivative capable of seating twelve (12) passengers or less that is rated at six thousand pounds (6,000 lbs) GVWR or less.

13. Light liquid volatile organic compound (VOC)—A fluid VOC with a vapor pressure greater than 0.3 kilopascals (kPa) at twenty degrees Celsius (20 °C).

14. Light liquid volatile organic compound (VOC) service—A component shall be considered in such service if it contacts a process fluid containing ten percent (10%) or greater light liquid VOC by weight.

15. Liquid fuel—A combustible liquid that includes, but is not limited to, distillate oil, residual oil, waste oil, and process liquids.

[3./16. Liquid-mounted seal—A primary foam- or liquid-filled seal mounted in continuous contact with the liquid between the *[tank]* wall of the storage vessel and the floating roof around the circumference of the tank.

17. Lithographic printing—A planographic printing process where the image and non-image areas are chemically differentiated; the image area is oil receptive and the non-image area is water receptive. This method differs from other printing methods, where the image is typically printed from a raised or recessed surface. Offset lithographic printing is the only common type of lithographic printing used for commercial printing.

18. Load/unload locations—Distribution centers, warehouses, retail stores, railroad facilities, ports, and any other sites where heavy duty diesel vehicles may idle their engines while waiting to load or unload.

19. Local air quality modeling analysis—an assessment of localized impacts on a scale smaller than the entire nonattainment or maintenance area, including, for example, congested roadways on a federal facility, which uses an air quality dispersion model (e.g., Industrial Source Complex Model or Emission and Dispersion Model System) to determine the effects of emissions on air quality.

20. Long-dry kiln—A kiln fourteen feet (14') or larger in diameter, four hundred feet (400') or greater in length, which employs no preheating of the feed and the inlet feed to the kiln is dry.

21. Long-wet kiln—A kiln fourteen feet (14') or larger in diameter, four hundred feet (400') or greater in length, which employs no preheating of the feed and the inlet feed to the kiln is a slurry.

22. Low-bake coating—A coating designed to cure at temperatures below one hundred ninety-four degrees Fahrenheit (194 °F).

23. Low-level radioactive waste—Waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

24. Low-NO_x burners—A type of burner (a device that functions as an injector of fuel and combustion air into a boiler or kiln to produce a flame that burns as close as possible to the center line of the boiler or kiln) that has a series of channels or orifices that 1) allow for the adjustment of the volume, velocity, pressure, and/or direction of the air carrying the fuel, known as primary air, into the boiler or kiln and 2) impart high momentum and turbulence to the fuel stream to facilitate mixing of the fuel and secondary air.

[4./25. Lower explosive limit (LEL)—The lower limit of flammability of a gas or vapor at ordinary ambient temperatures expressed in percent of the gas or vapor in air by volume.

[5./26. Lowest achievable emission rate (LAER)—That rate of emissions which reflects—

A. The most stringent emission limitation which is contained in any state implementation plan for a class or category of source, unless the owner or operator of the proposed source demonstrates that the limitations are not achievable; or

B. The most stringent emission limitation which is achieved in practice by the class or category of source, whichever is more stringent. LAER shall not be less stringent than the new source performance standard limit.

27. Low vapor pressure hydrocarbon-based cleaning solvent—A cleaning solvent that is composed of a mixture of photochemically reactive hydrocarbons and oxygenated hydrocarbons and has a maximum vapor pressure of seven millimeters of mercury (7 mmHg) at twenty degrees Celsius (20 °C). These cleaners must not contain hazardous air pollutants.

(M) All terms beginning with “M.”

1. **MACT (Maximum achievable control technology)**—The maximum degree of reduction in emissions of the hazardous air pollutants listed in subsection (3)(C) of this rule (including a prohibition on these emissions where achievable), taking into consideration the cost of achieving emissions reductions and any non-air quality health and environmental impacts and requirements, determines is achievable for new or existing sources in the category or subcategory to which this emission standard applies, through application of measures, processes, methods, systems, or techniques including, but not limited to, measures which/—/:

A. Reduce the volume of or eliminate emissions of pollutants through process changes, substitution of materials, or other modifications;

B. Enclose systems or processes to eliminate emissions;

C. Collect, capture, or treat pollutants when released from a process, stack, storage, or fugitive emissions point;

D. Are design, equipment, work practice, or operational standards (including requirements for operational training or certification); or

E. Are a combination of subparagraphs (2)(M)1.A.–D.

2. Maintenance area—An area that was designated as nonattainment and has been re-designated in 40 CFR 81 to attainment, meeting the provisions of section 107(d)(3)(E) of the Act and has a maintenance plan approved under section 175A of the Act.

3. Maintenance operation—Normal routine maintenance on any stationary internal combustion engine or the use of an emergency standby engine and fuel system during testing, repair, and routine maintenance to verify its readiness for emergency standby use.

4. Maintenance plan—A revision to the applicable Missouri State Implementation Plan (SIP), meeting the requirements of section 175A of the CAA.

[2./5. Major modification—Any physical change or change in the method of operation at an installation or in the attendant air pollution control equipment that would result in a significant net emissions increase of any pollutant. A physical change or a change in the method of operation, unless previously limited by enforceable permit conditions, shall not include:

A. Routine maintenance, repair, and replacement of parts;

B. Use of an alternative fuel or raw material by reason of an order under Sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974, a prohibition under the Power Plant and Industrial Fuel Use Act of 1978, or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;

C. Use of an alternative fuel or raw material, if prior to January 6, 1975, the source was capable of accommodating the fuel or material, unless the change would be prohibited under any

enforceable permit condition which was established after January 6, 1975;

D. An increase in the hours of operation or in the production rate unless the change would be prohibited under any enforceable permit condition which was established after January 6, 1975; or

E. Use of an alternative fuel by reason of an order or rule under Section 125 of the Clean Air Act.

[3./6. Malfunction—A sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal and usual manner. Excess emissions caused by improper design shall not be deemed a malfunction. **For the purpose of 10 CSR 10-6.200 only, malfunction is any sudden, infrequent, and not reasonably-preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions. During periods of malfunction the operator shall operate within established parameters as much as possible, and monitoring of all applicable operating parameters shall continue until all waste has been combusted or until the malfunction ceases, whichever comes first.**

7. Malfunction indicator lamp (MIL)—An amber-colored warning light located on the dashboard of vehicles equipped with On-Board Diagnostics systems indicating to the vehicle operator that the vehicle either has a malfunction or has deteriorated enough to cause a potential increase in the vehicle's tailpipe or evaporative emissions.

[4./8. Management planner—An individual, under AHERA, who devises and writes plans for asbestos abatement.

[5./9. Manure storage and application systems—Any system that includes but is not limited to lagoons, manure treatment cells, earthen storage ponds, manure storage tanks, manure stockpiles, composting areas, pits and gutters within barns, litter used in bedding systems, all types of land application equipment, and all pipes, hoses, pumps, and other equipment used to transfer manure.

10. Marine vessel—A craft capable of being used as a means of transportation on water, except amphibious vehicles.

[6./11. Maskant—A coating applied directly to an aerospace component to protect those areas when etching other parts of the component.

12. Mask coating—A thin film coating applied through a template to coat a small portion of a substrate.

13. Material safety data sheet (MSDS)—The chemical, physical, technical, and safety information document supplied by the manufacturer of the coating, solvent, or other chemical product.

14. Maximum charge rate—For continuous and intermittent HMIWI, one hundred ten percent (110%) of the lowest three (3)-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits; for batch HMIWI, one hundred ten percent (110%) of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

15. Maximum design heat input—The ability of a unit to combust a stated maximum amount of fuel per hour on a steady state basis, as determined by the physical design and physical characteristics of the unit.

16. Maximum fabric filter inlet temperature—One hundred ten percent (110%) of the lowest three (3)-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

17. Maximum flue gas temperature—One hundred ten percent (110%) of the lowest three (3)-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

18. Maximum potential hourly heat input—An hourly heat input used for reporting purposes when a unit lacks certified monitors to report heat input. If the unit intends to use Appendix D of 40 CFR 75 to report heat input, this value should be calculated, in accordance with 40 CFR 75, using the maximum fuel flow rate and the maximum gross calorific value. If the unit intends to use a flow monitor and a diluent gas monitor, this value should be reported, in accordance with 40 CFR 75, using the maximum potential flow rate and either the maximum carbon dioxide concentration (in percent CO₂) or the minimum oxygen concentration (in percent O₂).

19. Maximum potential NO_x emission rate—The NO_x emission rate of nitrogen oxides (in lb/mmBtu) calculated in accordance with section 3 of Appendix F of 40 CFR 75, using the maximum potential nitrogen oxides concentration as defined in section 2 of Appendix A of 40 CFR 75, and either the maximum oxygen concentration (in percent O₂) or the minimum carbon dioxide concentration (in percent CO₂), under all operating conditions of the unit except for unit start-up, shutdown, and upsets.

20. Maximum rated hourly heat input—A unit-specific maximum hourly heat input (mmBtu) which is the higher of the manufacturer's maximum rated hourly heat input or the highest observed hourly heat input.

21. Mechanical shoe seal—A metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

22. Medical device—An instrument, apparatus, implement, machine, contrivance, implant, *in vitro* reagent, or other similar article, including any component or accessory that meets one (1) of the following conditions:

A. It is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease;

B. It is intended to affect the structure or any function of the body; or

C. It is defined in the *National Formulary* or the *United States Pharmacopeia*, or any supplement to them.

23. Medical/infectious waste—Any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals as exempted in the applicable rule. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in 40 CFR 261; household waste, as defined in 40 CFR 261.4(b)(1); ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials identified in 40 CFR 261.4(a)(1).

A. Cultures and stocks of infectious agents and associated biologicals, including cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.

B. Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.

C. Human blood and blood products including:

(I) Liquid waste human blood;

(II) Products of blood;

(III) Items saturated and/or dripping with human blood; and

(IV) Items that were saturated and/or dripping with human blood that are now caked with dried human blood including serum, plasma, and other blood components, and their con-

tainers, which were used or intended for use in either patient care, testing and laboratory analysis, or the development of pharmaceuticals. Intravenous bags are also included in this category.

D. Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.

E. Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals, or testing of pharmaceuticals.

F. Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly-communicable diseases, or isolated animals known to be infected with highly-communicable diseases.

G. Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

24. Medium HMIWI—An HMIWI whose maximum design waste burning capacity is more than two hundred pounds (200 lbs) per hour but less than or equal to five hundred pounds (500 lbs) per hour, or a continuous or intermittent HMIWI whose maximum charge rate is more than two hundred pounds (200 lbs) per hour but less than or equal to five hundred pounds (500 lbs) per hour, or a batch HMIWI whose maximum charge rate is more than one thousand six hundred pounds (1,600 lbs) per day but less than or equal to four thousand pounds (4,000 lbs) per day. The following are not medium HMIWI: a continuous or intermittent HMIWI whose maximum charge rate is less than or equal to two hundred pounds (200 lbs) per hour or more than five hundred pounds (500 lbs) per hour; or a batch HMIWI whose maximum charge rate is more than four thousand pounds (4,000 lbs) per day or less than or equal to one thousand six hundred pounds (1,600 lbs) per day.

25. Metal to urethane/rubber molding or casting adhesive—An adhesive intended by the manufacturer to bond metal to high density or elastomeric urethane or molded rubber materials to fabricate products such as rollers for computer printers or other paper handling equipment.

26. Metallic coating—A coating which contains more than five (5) grams of metal particles per liter of coating as applied. Metal particles are pieces of a pure elemental metal or a combination of elemental metals.

27. Metropolitan planning organization (MPO)—The policy board of an organization created as a result of the designation process in 23 U.S.C. 134(d) and in 49 U.S.C. 5303. It is the forum for cooperative transportation decision-making and is responsible for conducting the planning required under section 174 of the CAA.

28. Mid-kiln firing—Secondary firing in kiln systems by injecting fuel at an intermediate point in the kiln system using a specially-designed fuel injection mechanism for the purpose of decreasing NO_x emissions through—

A. The burning of part of the fuel at a lower temperature; and

B. The creation of reducing conditions at the point of initial combustion.

29. Milestone—The meaning given in sections 182(g)(1) and 189(c)(1) of the CAA. It consists of an emissions level and the date on which it is required to be achieved.

30. Military specification coating—A coating which has a formulation approved by a United States Military Agency for use on military equipment.

31. Minimum dioxin/furan sorbent flow rate—Ninety percent (90%) of the highest three (3)-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

32. Minimum mercury (Hg) sorbent flow rate—Ninety percent (90%) of the highest three (3)-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

33. Minimum horsepower or amperage—Ninety percent (90%) of the highest three (3)-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limit.

34. Minimum hydrogen chloride (HCl) sorbent flow rate—Ninety percent (90%) of the highest three (3)-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

35. Minimum pressure drop across the wet scrubber—Ninety percent (90%) of the highest three (3)-hour average pressure drop across the wet scrubber particulate matter (PM) control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.

36. Minimum reagent flow rate—Ninety percent (90%) of the highest three (3)-hour average reagent flow rate at the inlet to the selective noncatalytic reduction technology (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the NO_x emissions limit.

37. Minimum scrubber liquor flow rate—Ninety percent (90%) of the highest three (3)-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

38. Minimum scrubber liquor pH—Ninety percent (90%) of the highest three (3)-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all HCl emission limits.

39. Minimum secondary chamber temperature—Ninety percent (90%) of the highest three (3)-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, carbon monoxide (CO), dioxin/furan, and NO_x emission limits.

40. Minor violation—A violation which possesses a small potential to harm the environment or human health or cause pollution, was not knowingly committed, and is not defined by the United States Environmental Protection Agency as other than minor.

41. Missouri Decentralized Analyzer System (MDAS)—The emissions inspection equipment that is sold by the state's contractor to licensed emissions inspection stations. The department may approve alternative equipment if the equipment described in this subsection is no longer available. At a minimum, the vehicle emissions inspection equipment shall consist of the following contractor equipment package:

- A. At least a seventeen-inch (17") Liquid Crystal Display (LCD) monitor;
- B. Universal serial bus (USB) lane camera;
- C. At least a four (4.0) megapixel digital camera and dock;

- D. Fingerprint scanner;
- E. Two hundred fifty-six (256)-megabyte USB flash drive;
- F. Keyboard with plastic keyboard cover and optical mouse;

- G. Printer with ink or toner cartridges and blank paper;
- H. 2D barcode reader;
- I. Windshield sticker printer with blank windshield stickers and thermal cartridge;

- J. OBD vehicle interface cable with a standard Society of Automotive Engineers J1962/J1978 OBD connector;

- K. OBD verification tool;
- L. Low-speed or high-speed Internet connection capabilities;

- M. Surge protector and uninterruptible power supply (UPS);

- N. At least a three-gigahertz (3.0 GHz) personal computer (Dell™ Pentium® 4 or equivalent), with Windows Vista® and one (1) gigabyte of Random Access Memory (RAM); and

- O. Metal cabinet to hold all of the components described in this subsection of the rule.

42. Missouri Department of Revenue (MDOR)—The state agency responsible for the oversight of vehicle registration at contract offices and via the Internet. This agency is also responsible for the registration denial method of enforcement for the vehicle emissions inspection and maintenance program.

43. Missouri State Highway Patrol (MSHP)—The state agency responsible for the oversight of the vehicle safety inspection program and joint oversight with the department of the vehicle emissions inspection and maintenance program.

44. Mitigation measure—any method of reducing emissions of the pollutant or its precursor taken at the location of the federal action and used to reduce the impact of the emissions of that pollutant caused by the action.

45. Mobile equipment—Any equipment that is physically capable of being driven or drawn on a roadway including, but not limited to, the following types of equipment:

- A. Construction vehicles such as mobile cranes, bulldozers, concrete mixers, etc.;

- B. Farming equipment such as a wheel tractor, plow, pesticide sprayer, etc.;

- C. Hauling equipment such as truck trailers, utility bodies, etc.; and

- D. Miscellaneous equipment such as street cleaners, golf carts, etc.

[7.]46. Model year—*[The annual production period of new motor vehicles designated by the calendar year in which the period ends, provided that if the manufacturer does not so designate vehicles manufactured by him/her, the model year with respect to the vehicles shall mean the twelve (12)-month period beginning January 1 of the year specified in this rule.]* The manufacturer's annual production period which includes January 1 of such calendar year. If the manufacturer has no annual production period, model year shall refer to the calendar year.

47. Modeling domain—A geographic area covered by an air quality model.

[8.]48. Modification—Any physical change, or change in method of operation of, a source operation or attendant air pollution control equipment which would cause an increase in potential emissions of any air pollutant emitted by the source operation. For the purpose of 10 CSR 10-5.490 only, modification is an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its most recent permitted design capacity; modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion.

[9.]49. Modification, Title I—See Title I modification.

50. **Modified HMIWI**—Any change to an HMIWI unit after the effective date of these standards such that the cumulative costs of the modifications, over the life of the unit, exceed fifty percent (50%) of the original cost of the construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or the change involves a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111 of the CAA.

51. **Mold seal coating**—The initial coating applied to a new mold or a repaired mold to provide a smooth surface which, when coated with a mold-release coating, prevents products from sticking to the mold.

52. **Monitoring system**—Any monitoring system that meets the requirements as described in a specific rule, including a continuous emissions monitoring system, an excepted monitoring system, or an alternative monitoring system.

53. **Monthly throughput**—The total volume of gasoline that is loaded into all gasoline storage tanks during a month, as calculated on a rolling thirty (30)-day average.

54. **MOPETP**—The Missouri Performance Evaluation Test Procedures, a set of standards and test procedures for evaluating performance of Stage I/II vapor recovery control equipment and systems to be installed or that have been installed in Missouri.

[10.]55. **Motor tricycle**—A motor vehicle operated on three (3) wheels, including a motorcycle with any conveyance, temporary or otherwise, requiring the use of a third wheel.

[11.]56. **Motor vehicle**—Any self-propelled vehicle.

57. **Motor vehicle adhesive**—An adhesive, including glass bonding adhesive, used at an installation that is not an automobile or light duty truck assembly coating installation, applied for the purpose of bonding two (2) motor vehicle surfaces together without regard to the substrates involved.

58. **Motor vehicle bedliner**—A multi-component coating, used at an installation that is not an automobile or light duty truck assembly coating installation, applied to a cargo bed after the application of topcoat to provide additional durability and chip resistance.

59. **Motor vehicle cavity wax**—A coating, used at an installation that is not an automobile or light duty truck assembly coating installation, applied into the cavities of the motor vehicle primarily for the purpose of enhancing corrosion protection.

60. **Motor vehicle deadener**—A coating, used at an installation that is not an automobile or light duty truck assembly coating installation, applied to selected motor vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment.

61. **Motor vehicle gasket/gasket-sealing material**—A fluid, used at an installation that is not an automobile or light duty truck assembly coating installation, applied to coat a gasket or replace and perform the same function as a gasket. Automobile and light duty truck gasket/gasket-sealing material includes room temperature vulcanization (RTV) seal material.

62. **Motor vehicle glass bonding primer**—A primer, used at an installation that is not an automobile or light duty truck assembly coating installation, applied to windshield or other glass, or to body openings, to prepare the glass or body opening for the application of glass-bonding adhesives or the installation of adhesive-bonded glass. Motor vehicle glass-bonding primer includes glass-bonding/cleaning primers that perform both functions (cleaning and priming of the windshield or other glass or body openings) prior to the application of adhesive or the installation of adhesive-bonded glass.

63. **Motor vehicle lubricating wax/compound**—A protective lubricating material, used at an installation that is not an auto-

mobile or light duty truck assembly coating installation, applied to motor vehicle hubs and hinges.

64. **Motor vehicle sealer**—A high viscosity material, used at an installation that is not an automobile or light duty truck assembly coating installation, generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating and before the application of subsequent coatings (e.g., primer-surfacer). Such materials are also referred to as sealant, sealant primer, or caulk.

65. **Motor vehicle truck interior coating**—A coating, used at an installation that is not an automobile or light duty truck assembly coating installation, applied to the trunk interior to provide chip protection.

66. **Motor vehicle underbody coating**—A coating, used at an installation that is not an automobile or light duty truck assembly coating installation, applied to the undercarriage or firewall to prevent corrosion and/or provide chip protection.

67. **Motor vehicle weatherstrip adhesive**—An adhesive, used at an installation that is not an automobile or light duty truck assembly coating installation, applied to weatherstripping materials for the purpose of bonding the weatherstrip material to the surface of the motor vehicle.

[12.]68. **Motorcycle**—A motor vehicle operated on two (2) wheels.

69. **Multi-colored coating**—A coating which exhibits more than one (1) color when applied and which is packaged in a single container and applied in a single coat.

70. **Multi-component coating**—A coating requiring the addition of a separate reactive resin, commonly known as a catalyst or hardener, before application to form an acceptable dry film.

71. **Multi-day violation**—A violation which has occurred on or continued for two (2) or more consecutive or nonconsecutive days.

72. **Multiple-violation penalty**—The sum of individual administrative penalties assessed when two (2) or more violations are included in the same complaint or enforcement action.

73. **Multipurpose construction adhesive**—An adhesive intended by the manufacturer for use in the installation or repair of various construction materials, including but not limited to drywall, subfloor, panel, fiberglass reinforced plastic (FRP), ceiling tile, and acoustical tile.

74. **Municipal solid waste landfill or MSW landfill**—An entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of Resource Conservation and Recovery Act (RCRA) Subtitle D wastes, per 40 CFR 257.2, such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

75. **Municipal solid waste landfill emissions or MSW landfill emissions**—Gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

(N) All terms beginning with “N.”

1. **Nameplate capacity**—The maximum electrical generating output (expressed as megawatt) that a generator can sustain over a specified period of time when not restricted by seasonal or other deratings, as listed in the National Allowance Data Base (NADB) under the data field “NAMECAP” if the generator is listed in the NADB or as measured in accordance with the United States Department of Energy standards. For generators not listed in the NADB, the nameplate capacity shall be used.

2. **National ambient air quality standards (NAAQS)**—those standards established pursuant to section 109 of the Act and defined by 10 CSR 10-6.010 Ambient Air Quality Standards. It

includes standards for carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone, particulate matter (PM₁₀ and PM_{2.5}), and sulfur dioxide (SO₂);

3. Natural finish hardwood plywood panel—A panel whose original grain pattern is enhanced by essentially transparent finishes frequently supplemented by fillers and toners.

4. NEPA—the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.).

[1./5. Nearby—Nearby, as used in the definition GEP stack height in subparagraph [(2)/(G)2.B.] (2)(G)15.B. of this rule, is defined for a specific structure or terrain feature—

A. For purposes of applying the formula provided in subparagraph [(2)/(G)3.B.] (2)(G)15.B. of this rule, nearby means that distance up to five (5) times the lesser of the height or the width dimension of a structure, but not greater than one-half (1/2) mile; and

B. For conducting fluid modeling or field study demonstrations under subparagraph [(2)/(G)3.C.] (2)(G)15.C. of this rule, nearby means not greater than one-half (1/2) mile, except that the portion of a terrain feature may be considered to be nearby which falls within a distance of up to ten (10) times the maximum height of the feature, not to exceed two (2) miles if feature achieves a height one-half (1/2) mile from the stack that is at least forty percent (40%) of the GEP stack height determined by the formula provided in subparagraph [(2)/(G)3.B.] (2)(G)15.B. of this rule, or twenty-six meters (26 m), whichever is greater, as measured from the ground-level elevation at the base of the stack. The height of the structure or terrain feature is measured from the ground-level elevation at the base of the stack.

[2./6. Net emissions increase—This term is defined in 40 CFR 52.21(b)(3), promulgated as of July 1, 2003, and hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions.

7. New—As defined for the purposes of 10 CSR 10-2.040 and 10 CSR 10-5.030, any source which is not an existing source, as defined in subsection (1)(E) of 10 CSR 10-2.040 or 10 CSR 10-5.030.

8. New Source Review (NSR)—The permitting requirements found in state rule 10 CSR 10-6.060 Construction Permits Required.

9. NMOC—Nonmethane organic compounds. Precursors to oxidant formation. They allow ozone to accumulate in the atmosphere.

10. Nonaqueous solvent—Any solvent not classifiable as an aqueous solvent as defined by a solvent in which water is the primary ingredient (greater than eighty percent (80%) by weight or greater than sixty percent (60%) by volume of solvent solution as applied must be water). Aqueous solutions must have a flash point greater than ninety-three degrees Celsius (93 °C) (two hundred degrees Fahrenheit (200 °F)) (as reported by the manufacturer) and the solution must be miscible with water.

[3./11. Nonattainment area (NAA)—[Those] Any geographic area/s in Missouri that have officially been designated by the U.S. Environmental Protection Agency/ of the United States which has been designated as nonattainment under section 107 of the CAA and described in 40 CFR [part] 81 [as nonattainment areas].

12. Nonattainment pollutant—Each and every pollutant for which the location of the source is in an area designated to be in nonattainment of a National Ambient Air Quality Standard (NAAQS) under section 107(d)(1)(A)(i) of the Act. Any constituent or precursor of a nonattainment pollutant shall be a nonattainment pollutant, provided that the constituent or precursor pollutant may only be regulated as part of regulation of the corresponding NAAQS pollutant. Both volatile organic compounds (VOC) and nitrogen oxides (NO_x) shall be nonattainment

pollutants for a source located in an area designated nonattainment for ozone.

13. Nondegradable waste—Any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

14. Nonpermanent final finish—A material such as a wax, polish, nonoxidizing oil, or similar substance that must be periodically reapplied to a surface over its lifetime to maintain or restore the reapplied material's intended effect.

15. Non-Title V permit—A federally-enforceable permit administered by the director pursuant to the CAA and regulatory authority under the CAA, other than Title V of the CAA and 40 CFR 70 or 40 CFR 71.

16. Normal maintenance—Repair or replacement of vapor recovery control equipment and/or gasoline dispensing components/dispensers that does not require breaking of concrete (by any method) and does not require removal of dispenser(s) from island(s).

17. Normal source operation—The average actual activity rate of a source necessary for determining the actual emissions rate for the two (2) years prior to the date necessary for determining actual emissions, unless some other time period is more representative of the operation of the source or otherwise approved by the staff director.

18. Normally-closed container—A storage container that is closed unless an operator is actively engaged in activities such as emptying or filling the container.

19. NO_x allowance—An authorization by the department or the administrator under a NO_x trading program to emit one (1) ton of NO_x during the control period of the specified year or of any year thereafter.

20. NO_x allowance deduction or deduct NO_x allowances—The permanent withdrawal of NO_x allowances by the administrator from a NO_x allowance tracking system compliance account or overdraft account to account for the number of tons of emissions from a NO_x budget unit for a control period, determined in accordance with a rule, or for any other NO_x allowance surrender obligation required.

21. NO_x allowance tracking system—The system by which the director or the administrator records allocations, deductions, and transfers of NO_x allowances under a NO_x trading program.

22. NO_x allowance tracking system account—An account in the NO_x allowance tracking system established by the director or administrator for purposes of recording the allocation, holding, transferring, or deducting of NO_x allowances.

23. NO_x allowances held—The NO_x allowances recorded by the director or administrator, or submitted to the director or administrator for recordation, in accordance with a rule, in a NO_x allowance tracking system account.

24. NO_x authorized account representative—The natural person who is authorized by the owners or operators of the source and all NO_x budget units at the source, in accordance with all applicable rules, to represent and legally bind each owner and operator in matters pertaining to a NO_x trading program or, for a general account, the natural person who is authorized, to transfer or otherwise dispose of NO_x allowances held in the general account in accordance with the applicable rules.

25. NO_x budget emissions limitation—For a NO_x budget unit, the tonnage equivalent of the NO_x allowances available for compliance deduction for the unit and for a control period adjusted by any deductions of such NO_x allowances to account for actual utilization for the control period or to account for excess emissions for a prior control period or to account for withdrawal from the NO_x budget program or for a change in regulatory status for an affected unit.

26. NO_x budget permit—The legally-binding and federally-enforceable written document, or portion of such document,

issued by the director, including any permit revisions, specifying the NO_x budget trading program requirements applicable to a NO_x budget source, to each NO_x budget unit at the NO_x budget source, and to the owners and operators and the NO_x authorized account representative of the NO_x budget source and each NO_x budget unit.

27. NO_x budget source—A source that includes one (1) or more NO_x budget units.

28. NO_x budget trading program—A multi-state nitrogen oxides air pollution control and emission reduction program pursuant to 40 CFR 51.121, as a means of mitigating the interstate transport of ozone and nitrogen oxides, an ozone precursor.

29. NO_x budget unit—A unit that is subject to the NO_x budget trading program emissions limitation under section (1) or paragraph (3)(H)1. of 10 CSR 10-6.360.

30. NO_x emission rate—The amount of NO_x emitted by a combustion unit in pounds per million British thermal units of heat input as recorded by approved monitoring devices.

31. NO_x emissions limitation—For an affected unit, the tonnage equivalent of the NO_x emissions rate available for compliance deduction for the unit and for a control period adjusted by any deductions of such NO_x allowances to account for actual utilization for the control period or to account for excess emissions for a prior control period or to account for withdrawal from a NO_x trading program or for a change in regulatory status for an affected unit.

32. NO_x opt-in unit—An EGU whose owner or operator has requested to become an affected unit under a NO_x trading program and has been approved by the department.

33. NO_x unit—Any fossil-fuel-fired stationary boiler, combustion turbine, internal combustion engine, or combined cycle system.

(O) All terms beginning with “O.”

1. Offset—A decrease in actual emissions from a source operation or installation that is greater than the amount of emissions anticipated from a modification or construction of a source operation or installation. The decrease must be of the same pollutant and have substantially-similar environmental and health effects on the impacted area. Any ratio of decrease to increase greater than one to one (1:1) constitutes offset. The exception to this are ozone nonattainment areas where VOC and NO_x emissions will require an offset ratio of actual emission reduction to new emissions according to the following schedule: marginal area = 1.1:1; moderate area = 1.15:1; serious area = 1.2:1; severe area = 1.3:1; and extreme area = 1.5:1.

2. Offset printing—A lithographic printing process that transfers the ink film from the lithographic plate to an intermediary surface (rubber-covered blanket cylinder), which, in turn, transfers the ink film to the substrate.

[2./3. Offtake—Any set of piping (for example, standpipes, goosenecks) that interconnects a coke oven with a collecting main which is common to all systems. The offtake system extends from the connection on top of the coke oven to the connection on the collecting main.

4. On-Board Diagnostics (OBD)—A vehicle emissions early-warning system required by federal law to be installed on all light duty 1996 and newer model year vehicles for sale in the United States. The OBD system monitors sensors and emissions-control related components on a vehicle to ensure that the emissions control system operates properly throughout a vehicle's lifetime. If one (1) or more components of the emissions control system malfunctions or deteriorates, the OBD system will illuminate the Malfunction Indicator Lamp (MIL) and store one (1) or more Diagnostic Trouble Codes (DTCs).

5. On-Board Diagnostics (OBD) test—A test in which a vehicle's OBD system is connected to a handheld tool or computer that an inspector uses to determine and/or collect and record—

A. The status of the OBD system's MIL when the vehicle

engine is off and when the vehicle engine is running;

B. Data link connector access and functionality and OBD communication;

C. Vehicle signature information, including, but not limited to, the electronic vehicle identification number (VIN) and other unique parameter identifiers;

D. The status of all of the OBD system's readiness monitors;

E. The OBD system's MIL command status; and

F. Any DTCs, including those that are commanding the MIL to be illuminated.

6. Onboard refueling vapor recovery (ORVR)—A system on motor vehicles designed to recover hydrocarbon vapors that escape during refueling.

7. Onboard refueling vapor recovery (ORVR) compatible—A Stage II vapor recovery system certified by CARB or other acceptable independent third-party evaluator, using test methods approved by the director, as ORVR compatible which maintains a required minimum overall system efficiency of ninety-five percent (95%), as certified under third-party evaluation, while dispensing fuel without difficulty to both ORVR-equipped and non-ORVR-equipped vehicles.

8. One-component coating—A coating that is ready for application as it comes out of its container to form an acceptable dry film. A thinner, necessary to reduce the viscosity, is not considered a component.

[3./9. Opacity—The extent to which airborne material obstructs the transmission of incident light and obscures the visual background. Opacity is stated as a percentage of light obstructed and can be measured by a continuous opacity monitoring system or a trained observer. An opacity of one hundred percent (100%) represents a condition in which no light is transmitted, and the background is completely obscured.

[4./10. Open burning—The burning of any materials where air contaminants resulting from combustion are emitted directly into the ambient air without passing through a stack or chimney from an enclosed chamber. For purposes of this definition, a chamber shall be regarded as enclosed, when, during the time combustion takes place, only those apertures, ducts, stacks, flues, or chimneys, as are necessary to provide combustion air and to permit the escape of exhaust gases, are open.

[5./11. Open-top vapor degreaser—A type of degreaser which consists of a tank where solvent is heated to its boiling point which creates a zone of solvent vapor contained by a set of cooling coils. Condensation of the hot solvent vapor cleans or degreases the colder metal parts.

12. Operating—With regard to a unit under part (3)(C)3.D.(II) and paragraph (3)(H)1. of 10 CSR 10-6.360, having documented heat input for more than eight hundred seventy-six (876) hours in the six (6) months immediately preceding the submission of an application for an initial NO_x budget permit under subparagraph (3)(H)4.A. of 10 CSR 10-6.360.

13. Operating day—A twenty four (24)-hour period between 12:00 midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the HMIWI.

14. Operating parameter value—A minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one (1) or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limit.

15. Operation—The period during which waste is combusted in the incinerator excluding periods of startup or shutdown.

16. Operator—Any person who operates, controls, or supervises a NO_x budget unit, a NO_x budget source, or an affected unit under a NO_x trading program, and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.

17. **Opt-in**—To voluntarily become an affected unit under a NO_x trading program.

18. **Optical coating**—A coating applied to an optical lens.

19. **Optical device**—An optical element used in an electro-optical device and designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.

20. **Organic solvent**—A liquid containing volatile organic compounds that is used for dissolving or dispersing constituents in a coating, adjusting the viscosity of a coating, cleaning, or washoff. When used in a coating, the organic solvent evaporates during drying and does not become a part of the dried film.

21. **Output**—The shaft work output from any engine plus the energy reclaimed by any useful heat recovery system.

16./22. **Outstate area**—Any area throughout the state except the City of St. Louis and St. Charles, St. Louis, Jefferson, Franklin, Clay, Cass, Buchanan, Ray, Jackson, Platte, and Greene counties.

23. **Outdoor floor covering installation adhesive**—Any adhesive intended by the manufacturer for use in the installation of floor covering that is not in an enclosure and that is exposed to ambient weather conditions during normal use.

24. **Overall control efficiency**—The efficiency of a control system, calculated as the product of the capture and control device efficiencies, expressed as a percentage.

25. **Overdraft account**—The NO_x allowance tracking system account established by the director or administrator for each NO_x budget source where there are two (2) or more NO_x budget units or for each NO_x authorized account representative.

17./26. **Owner or operator**—Any person who owns, leases, operates, controls, or supervises an air contaminant source. For the purpose of 10 CSR 10-6.360 only, owner is any of the following persons:

A. Any holder of any portion of the legal or equitable title in a NO_x budget unit;

B. Any holder of a leasehold interest in a NO_x budget unit;

C. Any purchaser of power from a NO_x budget unit under a life-of-the-unit, firm power contractual arrangement. However, unless expressly provided for in a leasehold agreement, owner shall not include a passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, upon the revenues or income from the NO_x budget unit; or

D. With respect to any general account, any person who has an ownership interest with respect to the NO_x allowances held in the general account and who is subject to the binding agreement for the NO_x authorized account representative to represent that person's ownership interest with respect to NO_x allowances.

27. **Ozone season**—From May 1 through September 30 of each year.

(P) All terms beginning with "P."

1. **Pail**—Any nominal cylindrical container of one to twelve (1–12)-gallon capacity.

2. **Paint**—A pigmented surface coating using VOCs as the major solvent and thinner which converts to a relatively opaque solid film after application as a thin layer.

3. **Pan-backing coating**—A coating applied to the surfaces of pots, pans, or other cooking implements that are exposed directly to a flame or other heating elements.

4. **Paper, film, and foil coating**—A web coating process that applies a continuous layer of coating material across essentially the entire width or any portion of the width of a web substrate to—

A. Provide a covering, finish, or functional or protective layer to a substrate;

B. Saturate a substrate for lamination; or

C. Provide adhesion between two (2) substrates for lamination.

13./5. **Part 70**—U.S. Environmental Protection Agency regula-

tions, codified at 40 CFR [part] 70, setting forth requirements for state operating permit programs pursuant to Title V of the Act.

6. **Part 70 installations**—Installations to which the part 70 operating permit requirements of rule 10 CSR 10-6.065 apply, in accordance with the following criteria:

A. They emit or have the potential to emit, in the aggregate, ten (10) tons per year (tpy) or more of any hazardous air pollutant, other than radionuclides, or twenty-five (25) tpy or more of any combination of these hazardous air pollutants or such lesser quantity as the administrator may establish by rule. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not these units are in a contiguous area or under common control, to determine whether these units or stations are subject installations. For sources of radionuclides, the criteria shall be established by the administrator;

B. They emit or have the potential to emit one hundred (100) tpy or more of any air pollutant, including all fugitive air pollutants. The fugitive emissions of an installation shall not be considered unless the installation belongs to one (1) of the source categories listed in 10 CSR 10-6.020(3)(B), Table 2;

C. They are located in nonattainment areas or ozone transport regions.

(I) For ozone nonattainment areas, sources with the potential to emit one hundred (100) tpy or more of volatile organic compounds or oxides of nitrogen in areas classified as "marginal" or "moderate," fifty (50) tpy or more in areas classified as "serious," twenty-five (25) tpy or more in areas classified as "severe," and ten (10) tpy or more in areas classified as "extreme"; except that the references in this paragraph to one hundred (100), fifty (50), twenty-five (25), and ten (10) tpy of nitrogen oxides shall not apply with respect to any source for which the administrator has made a finding, under section 182(f)(1) or (2) of the Act, that requirements under section 182(f) of the Act do not apply;

(II) For ozone transport regions established pursuant to section 184 of the Act, sources with the potential to emit fifty (50) tpy or more of volatile organic compounds;

(III) For carbon monoxide nonattainment areas that are classified as "serious," and in which stationary sources contribute significantly to carbon monoxide levels as determined under rules issued by the administrator, sources with the potential to emit fifty (50) tpy or more of carbon monoxide; and

(IV) For particulate matter less than ten (10) micrometers (PM₁₀) nonattainment areas classified as "serious," sources with the potential to emit seventy (70) tpy or more of PM₁₀;

D. They are affected sources under Title IV of the 1990 Act;

E. They are solid waste incinerators subject to section 129(e) of the Act;

F. Any installation in a source category designated by the administrator as a part 70 source pursuant to 40 CFR 70.3; and

G. Installations that would be part 70 sources strictly due to the following criteria are not subject to part 70 source requirements until the administrator subjects this installation to these requirements by rule:

(I) They are subject to a standard, limitation or other requirement under section 111 of the Act, including area sources; or

(II) They are subject to a standard or other requirement under section 112 of the Act, except that a source, including an area source, is not required to obtain a permit solely because it is subject to rules or requirements under section 112(r) of the Act.

14./7. **Particulate matter**—Any material, except uncombined water, that exists in a finely-divided form as a liquid or solid and as

specifically defined as follows:

A. PM—any airborne, finely-divided solid or liquid material with an aerodynamic diameter smaller than one hundred (100) micrometers as measured in the ambient air as specified in 10 CSR 10-6.040(4)(B); and

B. PM₁₀—particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers as measured in the ambient air as specified in 10 CSR 10-6.040(4)(J); and

C. PM_{2.5}—particulate matter with an aerodynamic diameter less than or equal to a nominal two and one-half (2.5) micrometers including the filterable component as measured in the ambient air as specified in 10 CSR 10-6.040(4)(L).

For the purpose of 10 CSR 10-6.200 only, particulate matter, or PM, is the total particulate matter emitted from an HMIWI as measured by EPA Reference Method 5 of 40 CFR 60, Appendix A-3 or EPA Reference Method 29 of 40 CFR 60, Appendix A-8.

8. Passenger tire equivalent (PTE)—The weight of waste tires or parts of waste tires equivalent to the average weight of one (1) passenger tire. The average weight of one (1) passenger tire is equal to twenty pounds (20 lbs).

9. Passenger vehicle—Every motor vehicle, except motorcycles, motor-driven cycles, and ambulances, designed for carrying ten (10) passengers or less and used for the transportation of persons.

10. Passive collection system—A gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

11. Pathological waste—Waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

12. Peak load—The maximum instantaneous operating load.

13. Peak ozone season—The time period (the months of June 1 through August 31) used in calculating ozone nonattainment area emissions on Emissions Inventory Questionnaire Form 2.0Z.

14. Peaking combustion unit—A combustion turbine normally reserved for operation during the hours of highest daily, weekly, or seasonal loads.

15. Perimeter bonded sheet flooring installation—The installation of sheet flooring with vinyl backing onto a nonporous substrate using an adhesive designed to be applied only to a strip of up to four inches (4") wide around the perimeter of the sheet flooring.

[5./16. Permanent shutdown—The permanent cessation of operation of any air pollution control equipment or process equipment, not to be placed back into service or have a start-up.

17. Permitted capacity factor—The annual permitted fuel use divided by the manufacturers' specified maximum fuel consumption times eight thousand seven hundred sixty (8,760) hours per year.

[6./18. Permitting authority—Either the administrator or the state air pollution control agency, local agency, or other agency authorized by the administrator to carry out a permit program as intended by the Act.

[7./19. Person—Any individual, partnership, **copartnership**, association, **firm**, **company**, **public or private** corporation including the parent company of a wholly-owned subsidiary, **joint stock company**, municipality, **political** subdivision, [or] agency, **board**, **department or bureau** of the state or **federal government**, trust, estate, or other legal entity either public or private **which is recognized by law as the subject of rights and duties**. This shall include any legal successor, employee, or agent of the previous entities.

[8./20. Petroleum liquid—Petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery with the exception of Numbers 2-6 fuel oils as specified in ASTM D (396-69), gas turbine fuel oils Number 2-GT-4-GT, as specified in ASTM D(2880-71), and diesel fuel oils Number 2-D and 4-D, as specified in ASTM D(975-68).

[9./21. Petroleum refinery—Any facility which produces gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation, cracking, extraction, or reforming of unfinished petroleum derivatives.

[10./22. Pharmaceutical—Any compound or preparation included under the Standard Industrial Classification Codes 2833 (Medicinal Chemicals and Botanical Products) and 2834 (Pharmaceutical Preparations), excluding products formulated by fermentation, extraction from vegetable material or animal tissue, or formulation and packaging of the final product.

[11./23. Pilot plants—The installations which are of new type or design which will serve as a trial unit for experimentation or testing.

[12./24. Plant-mix—A mixture produced in an asphalt mixing plant that consists of mineral aggregate uniformly coated with asphalt cement, cutback asphalt, or emulsified asphalt.

25. Plastic—A synthetic material chemically formed by the polymerization of organic substances and capable of being molded, extruded, cast into various shapes and films, or drawn into filaments.

26. Plastic foam—Foam constructed of plastics.

27. Plastic solvent welding adhesive—An adhesive intended by the manufacturer for use to dissolve the surface of plastic to form a bond between mating surfaces.

28. Plastic solvent welding adhesive primer—A primer intended by the manufacturer for use to prepare plastic substrates prior to bonding or welding.

29. Pleasure craft—A marine vessel which is manufactured or operated primarily for recreational purposes or leased, rented, or chartered to a person or business for recreational purposes.

30. Pleasure craft coating—A marine coating, except unsaturated polyester resin (fiberglass) coatings, applied by brush, spray, roller, or other means to a pleasure craft.

[13./31. Pollutant—An air contaminant listed in 10 CSR 10-6.020(3)(A), Table 1 without regard to levels of emission or air quality impact.

[14./32. Polyethylene bag sealing operation—Any operation or facility engaged in the sealing of polyethylene bags, usually by the use of heat.

[15./33. Polystyrene resin—The product of any styrene polymerization process, usually involving heat.

34. Polyvinyl chloride (PVC) plastic—A polymer of the chlorinated vinyl monomer that contains fifty-seven percent (57%) chlorine.

35. Polyvinyl chloride welding adhesive—An adhesive intended by the manufacturer for use in the welding of PVC plastic pipe.

36. Porous material—A substance that has tiny openings, often microscopic, in which fluids may be absorbed or discharged, including, but not limited to, paper and corrugated paperboard. For the purposes of 10 CSR 10-5.330, porous material does not include wood.

[16./37. Portable equipment—Any equipment that is designed and maintained to be movable, primarily for use in noncontinuous operations. Portable equipment includes rock crushers, asphaltic concrete plants, and concrete batching plants.

[17./38. Portable equipment installation—An installation made up solely of portable equipment, meeting the requirements of or having been permitted according to 10 CSR 10-6.060(4).

39. Portland cement—A hydraulic cement produced by pulverizing clinker consisting essentially of hydraulic calcium silicates, usually containing one (1) or more of the forms of calcium sulfate as an interground addition.

40. Portland cement kiln—A system, including any solid, gaseous, or liquid fuel combustion equipment, used to calcine and fuse raw materials, including limestone and clay, to produce Portland cement clinker.

[18.]41. Positive crankcase ventilation system—Any system or device which prevents the escape of crankcase emissions to the ambient air.

[19.]42. Potential to emit—The emission rates of any pollutant at maximum design capacity. Annual potential shall be based on the maximum annual-rated capacity of the installation assuming continuous year-round operation. Federally-enforceable permit conditions on the type of materials combusted or processed, operating rates, hours of operation, and the application of air pollution control equipment shall be used in determining the annual potential. Secondary emissions do not count in determining annual potential.

[20.]43. Potroom—A building unit which houses a group of electrolytic cells in which aluminum is produced.

[21.]44. Potroom group—An uncontrolled potroom, a potroom which is controlled individually, or a group of potrooms or potroom segments ducted to a common or similar control system.

45. Precursors of a criteria pollutant are—

A. For ozone, nitrogen oxides (NO_x), unless an area is exempted from NO_x requirements under section 182(f) of the CAA, and volatile organic compounds (VOCs);

B. For PM₁₀, those pollutants described in the PM₁₀ nonattainment area applicable SIP as significant contributors to the PM₁₀ levels; and

C. For PM_{2.5}—

(I) Sulfur dioxide (SO₂) in all PM_{2.5} nonattainment and maintenance areas;

(II) Nitrogen oxides in all PM_{2.5} nonattainment and maintenance areas unless both the state and EPA determine that it is not a significant precursor; and

(III) Volatile organic compounds (VOC) and ammonia (NH₃) only in PM_{2.5} nonattainment or maintenance areas where either the state or EPA determines that they are significant precursors.

46. Predictive emissions monitoring system (PEMS)—A system that uses process and other parameters as inputs to a computer program or other data reduction system to predict values in terms of the applicable emission limitation or standard.

47. Prefabricated architectural component coating—A coating applied to metal parts and products which are to be used as an architectural structure.

48. Preheater/precalciner kiln—A kiln where the feed to the kiln system is preheated in cyclone chambers and that utilizes a second burner to provide heat for calcination of material prior to the material entering the rotary kiln which forms clinker.

49. Preheater kiln—A kiln where the feed to the kiln system is preheated in cyclone chambers prior to the final fusion, which forms clinker.

50. Press—A printing production assembly that can be made up of one (1) or many units to produce a finished product.

51. Pretreatment coating—A coating which contains no more than twelve percent (12%) solids by weight, but at least one-half percent (0.5%) acids by weight, is used to provide surface etching, and is applied directly to metal surfaces to provide corrosion resistance, adhesion, and ease of stripping.

52. Pretreatment wash primer—A coating which contains no more than twenty-five percent (25%) solids by weight, but at least one-tenth of a percent (0.1%) acids by weight, is used to provide surface etching, and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings.

[22.]53. Primary aluminum reduction installation—Any facility manufacturing aluminum by electrolytic reduction of alumina.

54. Primary chamber—The chamber in an HMIWI that receives waste material, in which the waste is ignited, and from which ash is removed.

55. Primary fuel—The fuel that provides the principal heat input to the device. To be considered primary, the fuel must be able to sustain operation without the addition of other fuels.

[23.]56. Primer—The first *[surface]* layer and any subsequent layers of identically-formulated coating applied to the *[surface]* article to provide corrosion resistance, surface etching, surface leveling, adhesion promotion, or other property depending on the end use or exposure of the final product. Primers that are defined as specialty coatings are not included under this definition.

[24.]57. Primer-surfacer—*[The surface coatings applied over the primer and beneath the topcoat.]* An intermediate protective coating applied over the electrodeposition primer and under the topcoat at an automobile or light duty truck assembly coating facility. Primer-surfacer provides adhesion, protection, and appearance properties to the total finish. Primer-surfacer may also be called guide coat or surfacer.

58. Printed interior panel—A panel whose grain or natural surface is obscured by fillers and basecoats upon which a simulated grain or decorative pattern is printed.

59. Printing—Any operation that imparts color, images, or text onto a substrate using printing inks.

60. Printing ink—Any fluid or viscous composition used in printing, impressing, or transferring an image onto a substrate. Varnishes and coatings applied with offset lithographic and letterpress printing presses are inks and are part of the applicable printing process, not a separate operation such as paper coating.

61. Process—Any collection of structures and/or equipment that processes, assembles, applies, or otherwise uses material inputs to produce or store an intermediate or final product. A single facility may contain more than one (1) process or production unit.

62. Process heater—Any enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for onsite consumption, or autoclaves.

63. Process unit—For the purpose of 10 CSR 10-5.550 only, equipment assembled and connected by pipes or ducts to produce, as intermediates or final products, one (1) or more SOCM chemicals (see Appendix A of Control of Volatile Organic Compound Emissions from Reactor Processes and Distillation Operations Processes in the Synthetic Organic Chemical Manufacturing Industry, EPA-450/4-91-031). A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient product storage facilities.

[25.]64. Process weight—The total weight of all materials introduced into *[a source operation]* an emission unit, including solid fuels which may cause any emission of particulate matter, but excluding liquids and gases used solely as fuels and *[excluding]* air introduced for purposes of combustion.

65. Process weight rate—A rate in tons per hour established as follows:

A. The rate of materials introduced to the process which may cause any emission of particulate matter;

B. For continuous or long-run steady-state emission units, the total process weight for the entire period of continuous operation or for a typical portion, divided by the number of hours of that period or portion;

C. For cyclical or batch emission units, the total process weight for a period of time which covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during that period; or

D. Where the nature of any process or operation or the design of any equipment permits more than one (1) interpretation of this section, that interpretation which results in the minimum value for allowable emission shall apply.

66. Product—For the purpose of 10 CSR 10-5.550 only, any compound or SOCM chemical (see Appendix A of Control of Volatile Organic Compound Emissions from Reactor Processes and Distillation Operations Processes in the Synthetic Organic Chemical Manufacturing Industry, EPA-450/4-91-031) that is produced as that chemical for sales as a product, by-product, co-product, or intermediate or for use in the production of other chemicals or compounds.

67. Production—Any collection of structures and/or equipment, that processes, assembles, applies, or otherwise uses material inputs to produce or store an intermediate or final product. A single facility may contain more than one (1) process or production unit.

[26./68. Production equipment exhaust system—A device for collecting and directing out of the work area fugitive emissions from reactor openings, centrifuge openings, and other vessel openings and equipment for the purpose of protecting workers from excessive exposure.

69. Project-specific net emissions increase—The difference between permitted emissions to be emitted by the project that triggered a prevention of significant deterioration review and the baseline emission inventory for the applicable project.

70. Protocol—A replicable and workable method to estimate the mass of emissions reductions, or the amount of ERCs needed for compliance.

71. Public vehicle—Any motor vehicle, other than a passenger vehicle, and any trailer, semi-trailer, or pole trailer drawn by such a motor vehicle, which is designed, used, and maintained for the transportation of persons or property at the public expense and under public control.

[27./72. Publication rotogravure printing—Rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, and other types of printed materials.

[28./73. Pushing operation—The process of removing coke from the coke oven. The coke-pushing operation begins when the coke-side oven door is removed and is completed when the hot car enters the quench tower and the coke-side oven door is replaced.

74. Pyrolysis—The endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

(Q) All terms beginning with “Q.”

1. Qualifying repair—Any repair or adjustment performed on a vehicle's emissions control system after failing an initial emissions inspection that is reasonable to the test method failure. A qualifying repair is submitted as part of a cost-based waiver application and must document, to the department's satisfaction, the diagnostic testing or analysis method used by the person performing the repair. Repairs performed by a repair technician that were not authorized by the vehicle owner's signature or verbal consent may not be considered a qualifying repair. The qualifying repair must be performed within ninety (90) days after the date of initial emissions inspection. The initial or subsequent emissions reinspection should support the necessity of the qualifying repair. The qualifying repair may consist of either—

A. The parts costs, spent by a vehicle owner or charged to a vehicle owner by a repair technician, that are appropriate for the type of emissions inspection failure; or

B. The parts and recognized labor costs, charged to a vehicle owner by a Recognized Repair Technician, that are appropriate for the type of emissions inspection failure.

2. Quantifiable—The quantity of emission reductions can be measured or estimated by accurate and replicable techniques. These techniques shall be at least as accurate and replicable as the techniques accepted by the U.S. EPA, where accepted techniques exist.

(R) All terms beginning with “R.”

1. Reactive adhesive—An adhesive system composed, in part, of volatile monomers that react during the adhesive curing

reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least seventy percent (70%) of the liquid components of the system, excluding water, react during the process.

[1./2. Reactor—A vat or vessel, which may be jacketed to permit temperature control, designed to contain chemical reactions.

3. Reactor processes—Unit operations in which one (1) or more chemicals, or reactants other than air, are combined or decomposed in such a way that their molecular structures are altered and one (1) or more new organic compounds are formed.

4. Readiness monitor—A design feature of On-Board Diagnostics systems. If a readiness monitor has been set, then the OBD system has completed a diagnostic check on that component. If a readiness monitor has not been set, then the OBD system has not completed a diagnostic check on that component.

5. Reasonably-foreseeable emissions—Projected future direct and indirect emissions that are identified at the time the conformity determination is made; the location of such emissions is known and the emissions are quantifiable, as described and documented by the federal agency based on its own information and after reviewing any information presented to the federal agency.

6. Receive or receipt of—When referring to the director or the administrator, to come into possession of a document, information, or correspondence (whether sent in writing or by authorized electronic transmission), as indicated in an official correspondence log, or by a notation made on the document, information, or correspondence, by the director or the administrator in the regular course of business.

7. Recognized labor costs—The labor costs that a Recognized Repair Technician charges for emissions repair services rendered to a vehicle that fails its emissions inspection. Labor costs not tied to an emissions repair or solely for the purposes of setting readiness monitors may not be considered qualifying repairs.

8. Recognized Repair Technician—Any person who—

A. Is professionally engaged full-time in vehicle repair or employed by an ongoing business whose purpose is vehicle repair. A Recognized Repair Technician may only be recognized by the department at one (1) place of employment;

B. Has valid certifications from the National Institute for Automotive Service Excellence (ASE) in Electrical Systems (A6), Engine Performance (A8), and Advanced Engine Performance Specialist (L1) that have not expired; and

C. Has not been reported by the department to the attorney general for unlawful merchandising practices according to subsection 643.330.4, RSMo.

[2./9. Reconstruction—Where the fixed capital cost of the new components exceeds fifty percent (50%) of the fixed capital cost of a comparable entirely new source of operation or installation; the use of an alternative fuel or raw material by reason of an order in effect under /S/sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974, by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act, or by reason of an order or rule under /S/section 125 of the Clean Air Act, shall not be considered reconstruction. In determining whether a reconstruction will occur, the provisions of 40 CFR 60.15, December 1, 1979, shall be considered by the director.

10. Recordation, record, or recorded—With regard to NO_x allowances, the movement of NO_x allowances by the director or administrator from one (1) NO_x allowance tracking system account to another, for purposes of allocation, transfer, or deduction.

11. Recoverable fuel—Fuels that have been permitted for use for energy recovery under 10 CSR 10-6.065.

12. Recovery device—An individual unit of equipment, such as an adsorber, carbon adsorber, or condenser, capable of and

used for the purpose of recovering chemicals for use, reuse, or sale.

13. Recovery system—An individual recovery device or series of such devices applied to the same vent stream.

14. Recycled on-site—The reuse of an organic solvent in a process other than cleaning or washoff.

15. Reduction—Any heated process, including rendering, cooking, drying, dehydrating, digesting, evaporating, and protein concentrating.

16. Reference method—Any method of sampling and analyzing for an air pollutant that is published in Appendix A of 40 CFR 60.

17. Refinishing—The process of coating motor vehicles, or their parts, that is subsequent to the original coating applied at an original equipment manufacturing plant.

[3./18. Refuse—The garbage, rubbish, trade wastes, leaves, salvageable material, agricultural wastes, or other wastes.

19. Regionally-significant action—A federal action for which the direct and indirect emissions of any pollutant represent ten percent (10%) or more of a nonattainment or maintenance area's emissions inventory for that pollutant;

20. Regional water or wastewater projects—Include construction, operation, and maintenance of water or wastewater conveyances, water or wastewater treatment facilities, and water storage reservoirs which affect a large portion of a nonattainment or maintenance area.

[4./21. Regulated air pollutant—All air pollutants or precursors for which any standard has been promulgated.

[5./22. Regulated asbestos-containing material (RACM)—Friable asbestos material; category I nonfriable asbestos-containing material (ACM) that has become friable; category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this rule.

[6./23. Regulated pollutant—Any regulated air pollutant except carbon monoxide and pollutants regulated exclusively under section 112(r) or Title VI of the Act.

[7./24. Reid vapor pressure (RVP)—The absolute vapor pressure of a petroleum liquid as determined by "Tests for Determining Reid Vapor Pressure (RVP) of Gasoline and Gasoline-Oxygenate Blends" 40 CFR [part] 80, Appendix E as in effect July 1, 1990.

25. Reinforced plastic composite—A composite material consisting of plastic reinforced with fibers.

26. Related cleaning activity—The removal of coating residue or other unwanted materials from equipment related to coating operations as well as the cleaning of spray guns, transfer line, tanks, and the interior of spray booths.

27. Renewable fuel—Renewable energy resources that include but are not limited to solar (photovoltaic), wind, and biomass. Biomass includes but is not limited to: agricultural crops and crop waste, untreated wood and wood wastes, livestock waste, wastepaper, and organic municipal solid waste.

[8./28. Renewal—The process by which an operating permit is reissued at the end of its term.

[9./29. Repair—The restoration of asbestos material that has been damaged. Repair consists of the application of rewettable glass cloth, canvas, cement, or other suitable material. It may also involve filling damaged areas with nonasbestos substitutes and reencapsulating or painting previously-encapsulated materials.

30. Repair coating—A coating used to re-coat portions of a previously-coated product which has sustained mechanical damage to the coating following normal coating operations.

31. Reporting year—The state reporting requirement will coincide with the three (3)-year reporting cycle of the CERCLA, beginning with 2008. The subsequent reporting years will be every three (3)-years following 2008 (i.e., 2011, 2014, 2017, etc.).

32. Research and development activities—Activities conducted at a research or laboratory facility whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically-trained personnel and is not engaged in the manufacture of products for sale or exchange for commercial profit, except in a *de minimis* manner.

33. Research and development emissions unit—Any combustion unit operated only for the purpose of research and development work.

34. Residence time—Period of time in which gas in a thermal oxidizer, incinerator, or afterburner is exposed to heat and oxygen at a specified temperature in order to destroy pollutants present in the gas.

[10./35. Residual fuel oil—The fuel oil variously known as Bunker C, PS 400, and Number 6 as defined in ASTM D (396-487) (1959).

36. Resist coat—A coating that is applied to a plastic part before metallic plating to prevent deposits of metal on portions of the plastic part.

[11./37. Responsible official—Includes one (1) of the following:

A. The president, secretary, treasurer, or vice-president of a corporation in charge of a principal business function, any other person who performs similar policy and decision-making functions for the corporation, or a duly-authorized representative of this person if the representative is responsible for the overall operation of one (1) or more manufacturing, production, or operating facilities applying for or subject to a permit and either—

(I) The facilities employ more than two hundred fifty (250) persons or have a gross annual sales or expenditures exceeding twenty-five (25) million dollars (in second quarter 1980 dollars); or

(II) The delegation of authority to this representative is approved in advance by the permitting authority;

B. A general partner in a partnership or the proprietor in a sole proprietorship;

C. Either a principal executive officer or ranking elected official in a municipality[, /] or state, federal, or other public agency. For the purpose of this subparagraph, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency; or

D. The designated representative of an affected source insofar as actions, standards, requirements, or prohibitions under Title IV of the Act or the regulations promulgated under the Act are concerned and the designated representative for any other purposes under part 70.

38. Restricted information—Information that is privileged or that is otherwise protected from disclosure pursuant to applicable statutes, executive orders, or regulations. Such information includes, but is not limited to, classified national security information, protected critical infrastructure information, sensitive security information, and proprietary business information.

[12./39. Retail outlet—Any establishment where gasoline is sold, offered for sale, or used as a motor vehicle fuel.

40. Rich-burn engine—A two (2)- or four (4)-stroke SI engine where the oxygen content in the exhaust stream before any dilution is one percent (1%) or less measured on a dry basis.

[13./41. Road-mix—An asphalt course produced by mixing mineral aggregate and cutback or emulsified asphalt at the road site by means of travel plants, motor graders, drags, or special road-mixing equipment.

[14./42. Roll printing—The application of words, designs, and pictures to a substrate, usually by means of a series of hard rubber or steel rolls each with only partial coverage.

[15./43. Roller spreader—The device used for the application of a coating material to a substrate by means of hard rubber or steel rolls.

44. Rolling lubricant—Petroleum-based oil usually mixed with additives. The lubricant is used to cool the work rolls and provide lubrication for the product in contact with the work rolls.

[16.]45. Rotogravure printing—The application of words, designs, and pictures to a substrate by means of a roll-printing technique which involves an intaglio or recessed image areas in the form of cells.

46. Rubber—Any natural or manmade rubber substrate, including, but not limited to, styrene-butadiene rubber, polychloroprene (neoprene), butyl rubber, nitrile rubber, chlorosulfonated polyethylene, and ethylene propylene diene terpolymer.

(S) All terms beginning with "S."

1. Safety-indicating coating—A coating which changes physical characteristics, such as color, to indicate unsafe conditions.

[1.]2. Salvage operation—Any business, trade, industry, or other activity conducted in whole or in part for the purpose of salvaging or reclaiming any product or material.

3. Sealer—A finishing material used to seal the pores of a wood substrate before additional coats of finishing material are applied. Washcoats, which are used in some finishing systems to optimize aesthetics, are not sealers.

[2.]4. Sealing material—A liquid substance that does not contain asbestos which is used to cover a surface that has previously been coated with a friable asbestos-containing material for the intended purpose of preventing any asbestos fibers remaining on the surface from being disburled into the air. This substance shall be distinguishable from the surface to which it is applied.

5. Secondary chamber—A component of the HMIWI that receives combustion gases from the primary chamber and in which the combustion process is completed.

[3.]6. Secondary emissions—The emissions which occur or would occur as a result of the construction or operation of an installation or major modification but do not come from the installation or major modification itself. Secondary emissions must be specific, well-defined, quantifiable, and impact the same general area as the installation or modification which causes the secondary emissions. Secondary emissions may include, but are not limited to:

A. Emissions from trucks, ships, or trains coming to or from the installation or modification; and

B. Emissions from any off-site support source which would not be constructed or increase its emissions except as a result of the construction or operation of the major stationary source or major modification.

[4.]7. Section 502(b)(10) changes—Changes that contravene an express permit term. These changes do not include those that would violate applicable requirements or contravene federally-enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements.

8. Self-priming topcoat—A topcoat that is applied directly to a vehicle or component for purposes of corrosion prevention, environmental protection, and function fluid resistance. More than one (1) layer of identical coating formulation may be applied to the vehicle or component.

9. Semi-aqueous cleaning solvent—A solution in which water is a primary ingredient (greater than sixty percent (60%) by weight of the solvent solution as applied must be water).

10. Serial number—When referring to NO_x allowances, the unique identification number assigned to each NO_x allowance by the administrator or director.

[5.]11. Sheet basecoat—The roll coated primary interior surface coating applied to surfaces for the basic protection of buffering filling material from the metal can surface.

12. Sheet-fed—A printing press where individual sheets of substrate are fed into the press sequentially.

13. Sheet rubber lining installation—The process of applying sheet rubber liners by hand to metal or plastic substrates to protect the underlying substrate from corrosion or abrasion. These

operations also include laminating sheet rubber to fabric by hand.

14. Shock-free coating—A coating applied to electrical components to protect the user from electric shock. The coating has characteristics of being of low capacitance and high resistance and having resistance to breaking down under high voltage.

[6.]15. Shutdown—The cessation of operation of any air pollution control equipment or process equipment, excepting the routine phasing out of process equipment. For the purpose of 10 CSR 10-6.200 only, shutdown is the period of time after all waste has been combusted in the primary chamber. For continuous HMIWI, shutdown shall commence no less than two (2) hours after the last charge to the incinerator. For intermittent HMIWI, shutdown shall commence no less than four (4) hours after the last charge to the incinerator. For batch HMIWI, shutdown shall commence no less than five (5) hours after the high-air phase of combustion has been completed. For the purpose of 10 CSR 10-6.410 only, shutdown is rendering an installation or unit inoperable by physically removing, dismantling, or otherwise disabling the installation or unit so that it could not be reactivated without obtaining a new permit in accordance with 10 CSR 10-6.060.

[7.]16. Shutdown, permanent—See permanent shutdown.

17. Side-seam coating—A coating applied on the interior and/or exterior of a welded, cemented, or soldered seam to protect the exposed metal.

[8.]18. Significant—A net emissions increase or potential to emit at a rate equal to or exceeding the *de minimis* levels or create an ambient air concentration at a level greater than those listed in 10 CSR 10-6.060(11)(D) Table 4, or any emissions rate or any net emissions increase associated with an installation subject to 10 CSR 10-6.060 which would be constructed within ten kilometers (10 km) of a Class I area and have an air quality impact on the area equal to or greater than one microgram per cubic meter (1 µg/m³) (twenty-four (24)-hour average). For purposes of new source review under 10 CSR 10-6.060 sections (7) and (8), net emission increases of hazardous air pollutants exceeding the *de minimis* levels are considered significant only if they are also criteria pollutants.

19. Silicone release coating—A coating which contains silicone resin and is intended to prevent food from sticking to metal surfaces, such as baking pans.

20. Similar source—A stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed major source such that the source could be controlled using the same control technology.

21. Single-ply roof membrane—A prefabricated single sheet of rubber, normally ethylene propylene diene terpolymer, that is field applied to a building roof using one (1) layer of membrane material. For the purposes of rule 10 CSR 10-5.330, single-ply roof membrane does not include membranes prefabricated from EPDM.

22. Single-ply membrane adhesive primer—A primer labeled for use to clean and promote adhesion of the single-ply roof membrane seams or splices prior to bonding.

23. Single-ply membrane installation and repair adhesive—An adhesive labeled for use in the installation or repair of single-ply roof membrane. Installation includes, as a minimum, attaching the edge of the membrane to the edge of the roof and applying flashings to vents, pipes, or ducts that protrude through the membrane. Repair includes gluing the edges of torn membrane together, attaching a patch over a hole, and reapplying flashings to vents, pipes, or ducts installed through the membrane.

24. Six (6)-minute period—A three-hundred-sixty (360)-consecutive-second time interval. Six (6)-minute block averages shall be utilized for COMS data per the provisions of Appendix B to 40 CFR 60, Performance Specification 1, promulgated as of July 1, 2007, and hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol

Street NW, Washington, DC 20401. This definition does not incorporate any subsequent amendments or additions.

25. **Sludge**—Any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

26. **Small HMIWI**—An HMIWI whose maximum design waste burning capacity is less than or equal to two hundred (200) pounds per hour, or a continuous or intermittent HMIWI whose maximum charge rate is less than or equal to two hundred (200) pounds per hour, or a batch HMIWI whose maximum charge rate is less than or equal to one thousand six hundred (1,600) pounds per day. The following are not small HMIWI: a continuous or intermittent HMIWI whose maximum charge rate is more than two hundred (200) pounds per hour; a batch HMIWI whose maximum charge rate is more than one thousand six hundred (1,600) pounds per day.

[9./27. **Smoke**—Small gas-borne particles resulting from combustion, consisting of carbon, ash, and other material.

28. **Smoke generating device**—A specialized piece of equipment which is not an integral part of a commercial, industrial, or manufacturing process and whose sole purpose is the creation and dispersion of fine solid or liquid particles in a gaseous medium.

29. **Soils**—Includes, but is not limited to, unwanted grease, wax, grit, ash, dirt, and oil.

30. **Solar absorbent coating**—A coating which has as its prime purpose the absorption of solar radiation.

31. **Solid film lubricant**—A very thin coating consisting of a binder system containing as its chief pigment material one (1) or more of the following:

A. Molybdenum;

B. Graphite;

C. Polytetrafluoroethylene (PTFE); and

D. Other solids that act as a dry lubricant between closely- or tightly-fitting surfaces.

32. **Solid fuel**—A solid material used as a fuel that includes, but is not limited to, coal, wood, biomass, tires, plastics, and other nonfossil solid materials.

33. **Solid waste**—Any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility; and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)

34. **Solids**—See coating solids.

35. **Solids turnover ratio (R_p)**—The ratio of total volume of coating solids that is added to the electrodeposition primer system in a calendar month divided by the total volume design capacity of the electrodeposition primer system.

[10./36. **Solvent**—Organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents.

[11./37. **Solvent metal cleaning**—The process of cleaning soils from metal surfaces by cold cleaning or open-top vapor degreasing or conveyorized degreasing.

38. **Source**—Any governmental, institutional, commercial, or industrial structure, installation, plant, building, or facility that emits or has the potential to emit any regulated air pollutant under the CAA. For purposes of section 502(c) of the CAA, a "source," including a "source" with multiple units, shall be considered a single "facility."

[12./39. **Source gas volume**—The volume of gas arising from a process or other source operation.

[13./40. **Source operation**—See emission unit.

41. **Specially-constructed vehicle**—A motor vehicle that has not been originally constructed under a distinctive name, make, model, or type by a manufacturer of motor vehicles, that has been issued a specially-constructed VIN number from the MDOR, and that has had the specially-constructed VIN installed by the MSHP. The term specially-constructed vehicle includes kit vehicles that are motor vehicles assembled by a person other than a generally-recognized manufacturer of motor vehicles by the use of a glider kit or replica purchased from an authorized manufacturer and accompanied by a manufacturer's statement of origin.

42. **Specialty coating**—A coating that, even though it meets the definition of a primer, topcoat, or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats, and self-priming topcoats for specific applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, anti-reflection, temporary protection, or marking, sealing, adhesively-joining substrates, or enhanced corrosion protection.

43. **Spray gun cleaner**—Equipment used to clean spray guns used to apply, but not limited to, primers, paints, specialty coatings, adhesives, sealers, resins, or deadeners incorporated into a product distributed in commerce.

44. **Spray gun soils**—Include, but are not limited to, unwanted grease, wax, grit, ash, dirt, oil, unwanted primers, paint, specialty coatings, adhesives, sealers, resins, and deadeners.

[14./45. **Springfield-Greene County area**—The geographical area contained within Greene County.

[15./46. **St. Louis metropolitan area**—The geographical area comprised of St. Louis, St. Charles, Jefferson, and Franklin Counties and the City of St. Louis.

[16./47. **Stack**—Any spatial point in an installation designed to emit air contaminants into ambient air. An accidental opening such as a crack, fissure, or hole is a source of fugitive emissions, not a stack.

[17./48. **Staff director**—Director of the Air Pollution Control Program of the Department of Natural Resources.

[18./49. **Stage I vapor recovery system**—A system used to capture the gasoline vapors that would otherwise be emitted when gasoline is transferred from a loading installation to a [delivery vessel] cargo tank or from a [delivery vessel] cargo tank to a storage tank.

[19./50. **Stage II vapor recovery system**—A system used to capture the gasoline vapors that would otherwise be emitted when gasoline is dispensed [into a vehicle fuel tank by routing vapors back to the fuel storage tank.] from a storage tank to the fuel tank of a motor vehicle. For MOPETP, Stage II vapor recovery includes both Stage I and Stage II Vapor Recovery equipment and requirements, unless otherwise stated.

51. **Stain**—Any color coat having a solids content by weight of no more than eight percent (8%) that is applied in single or multiple coats directly to the substrate. Includes, but is not limited to, nongrain raising stains, equalizer stains, sap stains, body stains, no-wipe stains, penetrating stains, and toners.

[20./52. **Standard conditions**—A gas temperature of seventy degrees Fahrenheit (70 °F) and a gas pressure of 14.7 pounds per square inch absolute (psia).

53. **Standard metropolitan statistical area or SMSA**—Any areas listed in Office of Management and Budget Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993, and hereby incorporated by reference in this rule, as published by the National Technical Information Services, 5285 Port Royal Road, Springfield, VA 22161. This rule does not incorporate any subsequent amendments or additions.

/21./54. Start-up—The setting into operation of any air pollution control equipment or process equipment, except the routine phasing in of process equipment. For the purpose of 10 CSR 10-6.200 only, start-up is the period of time between the activation of the system and the first charge to the unit. For batch HMIWI, start-up means the period of time between activation of the system and ignition of the waste.

55. Start-up unit—A unit operated only to start up larger electric generating units.

/22./56. State—Any nonfederal permitting authority, including any local agency, interstate association, or statewide program. When clear from its context, state shall have its conventional territorial definition. For the purpose of 10 CSR 10-6.360 only, state is one (1) of the forty-eight (48) contiguous states and the District of Columbia specified in 40 CFR 51.121, or any non-federal authority in or including such states or the District of Columbia (including local agencies and statewide agencies) or any eligible Indian tribe in an area of such state or the District of Columbia that adopts a NO_x budget trading program pursuant to 40 CFR 51.121. To the extent a state incorporates by reference the provisions of this part, the term “state” shall mean the incorporating state. The term “state” shall have its conventional meaning where such meaning is clear from the context.

/23./57. State implementation plan—A series of plans adopted by the commission, submitted by the director, and approved by the administrator[,] detailing methods and procedures to be used in attaining and maintaining the ambient air quality standards in Missouri.

58. State trading program NO_x budget—The total number of tons apportioned to all NO_x budget units in a given state, in accordance with the NO_x budget trading program, for use in a given control period.

59. Stationary internal combustion engine—Internal combustion engine of the reciprocating type that is either attached to a foundation at a facility or is designed to be capable of being carried or moved from one (1) location to another and remains at a single site at a building, structure, facility, or installation for more than twelve (12) consecutive months. Any engine(s) that replace(s) an engine at a site that is intended to perform the same or similar function as the engine replaced is included in calculating the consecutive time period. Nonroad engines and engines used solely for competition are not stationary internal combustion engines.

60. Stationary source—Any building, structure, facility, or installation which emits or may emit any air pollutant subject to regulation under the CAA. Building, structure, facility, or installation includes all pollutant emitting activities that are located on one (1) or more contiguous or adjacent properties and are under the common control of the same person(s).

61. Stencil coating—An ink or a pigmented coating which is applied over a stencil in order to add identifying letters, symbols, and/or numbers.

62. Stoichiometric air/fuel ratio—The air/fuel ratio where all fuel and all oxygen in the air/fuel mixture will be consumed.

63. Stoker boiler—A boiler design that employs a grate assembly to combust coal.

64. Storage container—Vessel or tank, including mix equipment, used to hold finishing, cleaning, or washoff materials.

/24./65. Storage tank—Any tank, reservoir, or vessel which is a container for liquids or gases, where no manufacturing process or part of it[,] takes place.

66. Strippable booth coating—A coating that—

A. Is applied to a booth wall to provide a protective film to receive overspray during finishing operations;

B. That is subsequently peeled off and disposed; and

C. By achieving A. and B. above, reduces or eliminates the need to use organic solvents to clean booth walls.

67. Structural glazing—A process that includes the applica-

tion of adhesive to bond glass, ceramic, metal, stone, or composite panels to exterior building frames.

68. Subfloor installation—The installation of subflooring material over floor joists, including the construction of any load-bearing joists. Subflooring is covered by a finish surface material.

/25./69. Submerged fill pipe—Any fill pipe the discharge opening of which is entirely submerged when the liquid level is six inches (6") above the bottom of the tank. Submerged fill pipe when applied to a tank which is loaded from the side is defined as any fill pipe, the discharge opening of which is entirely submerged when the liquid level is eighteen inches (18") or twice the diameter of the fill pipe, whichever is greater, above the bottom of the tank.

70. Submerged filling—The filling of a gasoline storage tank through a submerged fill pipe with a discharge no more than six inches (6") (no more than twelve inches (12") for submerged fill pipes installed on or before November 9, 2006) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

71. Submit or serve—To send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation—

A. In person;

B. By United States Postal Service; or

C. By other means of dispatch or transmission and delivery. Compliance with any “submission,” “service,” or “mailing” deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.

72. Substrate—The surface onto which coatings are applied (or into which coatings are impregnated).

73. Sufficient density—Any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance as set forth.

74. Sufficient extraction rate—A rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

75. Surface coating line—Same as a surface coating unit.

76. Surface coating operation—Same as industrial surface coating operation.

77. Surface coating unit—One (1) or more coating applicators and any associated drying area and/or oven wherein a coating is applied, dried, and/or cured. A coating unit ends at the point where the coating is dried or cured, or prior to any subsequent application of a different coating. It is not necessary for a coating unit to have an oven or flash-off area.

/26./78. Synthesized pharmaceutical manufacturing—Manufacture of pharmaceutical products by chemical synthesis.

79. System—For vapor recovery, a combination of MOPETP-approved (Stage I and Stage II) equipment and components demonstrated to achieve the required efficiencies.

(T) All terms beginning with “T.”

1. Tangentially-fired boiler—A boiler that has coal and air nozzles mounted in each corner of the furnace where the vertical furnace walls meet. Both pulverized coal and air are directed from the furnace corners along a line tangential to a circle lying in a horizontal plane of the furnace.

2. Take or start the federal action—The date that the federal agency signs or approves the permit, license, grant, or contract or otherwise physically begins the federal action that requires a conformity evaluation.

3. Temporary boiler—Any gaseous or liquid fuel boiler that is designed to be, and is capable of being, carried or moved from one (1) location to another. A temporary boiler that remains at a location for more than one hundred eighty (180) days during any

three hundred sixty-five (365)-day period is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

[1./4. Temporary installation—An installation which operates or emits pollutants less than two (2) years.

5. Texture coat—A coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating.

6. Thin metal laminating adhesive—An adhesive intended by the manufacturer for use in bonding multiple layers of metal to metal or metal to plastic in the production of electronic or magnetic components in which the thickness of the bond line(s) is less than 0.25 millimeters.

7. Tileboard—A premium interior wall paneling product made of hardboard that is used in high-moisture areas of the home, such as kitchens and bathrooms, and meets the specifications for Class I hardboards as approved by the American National Standards Institute.

8. Tire-derived fuel—The end product of a process that converts whole scrap tires into a specific chipped form capable of being used as fuel.

9. Tire repair—A process that includes expanding a hole, tear, fissure, or blemish in a tire casing by grinding or gouging, applying adhesive, and filling the hole or crevice with rubber.

[2./10. Title I modification—Any modification that requires a permit under 10 CSR 10-6.060 section (7) or (8)/, or that is subject to any requirement under 10 CSR 10-6.070 or 10 CSR 10-6.080.

11. Title V operating permit—A permit issued under Title V of the CAA and 40 CFR 70 or 40 CFR 71.

12. Title V operating permit regulations—The regulations that the administrator has approved or issued as meeting the requirements of Title V of the CAA and 40 CFR 70 or 40 CFR 71.

13. Ton or tonnage—Any “short ton” (i.e., two thousand pounds (2,000 lbs)). For the purpose of determining compliance with the NO_x budget emissions limitation, total tons for a control period shall be calculated as the sum of all recorded hourly emissions (or the tonnage equivalent of the recorded hourly emissions rates) in accordance with applicable requirements, with any remaining fraction of a ton equal to or greater than one-half (0.50) ton deemed to equal one (1) ton and any fraction of a ton less than one-half (0.50) ton deemed to equal zero (0) tons.

[3./14. Topcoat—The *[surface coatings]* last film-building finishing material applied for the purpose of establishing the color or protective surface, or both, including groundcoat and paint sealer materials, base coat, and clear coat. Nonpermanent final finishes are not topcoats.

[4./15. Total fluoride—The elemental fluorine and all fluoride compounds as measured by reference methods specified in 10 CSR 10-6.030(12) or equivalent or alternative methods.

16. Total of direct and indirect emissions—The sum of direct and indirect emissions increases and decreases caused by the federal action; that is, the net emissions considering all direct and indirect emissions. Any emissions decreases used to reduce such total shall have already occurred or shall be enforceable under state and federal law. The portion of emissions which are exempt or presumed to conform under subsection (3)(C), (D), (E), or (F) of 10 CSR 10-6.300 are not included in the “total of direct and indirect emissions,” except as provided in subsection (3)(J) of 10 CSR 10-6.300. The “total of direct and indirect emissions” includes emissions of criteria pollutants and emissions of precursors of criteria pollutants. The segmentation of projects for conformity analyses when emissions are reasonably foreseeable is not permitted by this rule.

17. Total organic compounds or “TOC”—Those compounds measured according to the procedures of Method 18 of 40 CFR

60, Appendix A. For the purposes of measuring molar compositions as required in subparagraph (3)(B)3.D. of 10 CSR 10-5.550; hourly emissions rate as required in subparagraph (3)(B)5.D. of 10 CSR 10-5.550 and paragraph (3)(B)2. of 10 CSR 10-5.550; and TOC concentration as required in paragraph (4)(A)4. of 10 CSR 10-5.550. The definition of TOC excluded those compounds that the administrator designates as having negligible photochemical reactivity. The administrator has designated the following organic compounds negligibly reactive: methane; ethane; 1,1,1-trichloroethane; methylene chloride; trichlorofluoromethane; dichlorodifluoromethane; chlorodifluoromethane; trifluoromethane; trichlorotrifluoroethane; dichlorotetrafluoroethane; and chloropentafluoroethane.

18. Total resource effectiveness index value or “TRE index value”—A measure of the supplemental total resource requirement per unit reduction of organic hazardous air pollutants associated with a process vent stream, based on vent stream flow rate, emission rate of volatile organic compound, net heating value, and corrosion properties (whether or not the vent stream contains halogenated compounds) as quantified by the given equations. The TRE index is a decision tool used to determine if the annual cost of controlling a given vent gas stream is acceptable when considering the emissions reduction achieved.

19. Touch-up coating—A coating used to cover minor coating imperfections appearing after the main coating operation.

20. Touch-up and repair operation—That portion of the coating operation that is the incidental application of finishing materials used to cover minor imperfections in the coating finish or to achieve complete coverage. This definition includes out-of-sequence or out-of-cycle coating.

[5./21. Trade waste—The solid, liquid, or gaseous material resulting from construction or the prosecution of any business, trade, or industry or any demolition operation including, but not limited to, plastics, cardboard cartons, grease, oil, chemicals, or cinders.

22. Traffic coatings—Coatings formulated for and applied to public streets, highways, and other surfaces including, but not limited to, curbs, berms, driveways, and parking lots.

[6./23. Transfer efficiency (TE)—Ratio of the amount of coating solids transferred onto a product to the total of coating solids used. In any surface coating operation, TE is the ratio of solids in a coating that adhere on a target surface to the total solids used in the process for coating the target surface.

24. Translucent coating—A coating which contains binders and pigment and is formulated to form a colored, but not opaque, film.

25. Treated wood—Wood that has been subjected to a chemical process or application.

26. Tribal implementation plan (TIP)—A plan to implement the national ambient air quality standards adopted and submitted by a federally-recognized Indian tribal government determined to be eligible under 40 CFR 49.9 and the plan has been approved by EPA.

[7./27. True vapor pressure—The equilibrium partial pressure exerted by a petroleum liquid as determined in American Petroleum Institute Bulletin 2517, *Evaporation Loss from Floating Roof Tanks*, 1962.

28. Type I etchant—A chemical milling etchant that contains varying amounts of dissolved sulfur and does not contain amines.

29. Type II etchant—A chemical milling etchant that is a strong sodium hydroxide solution containing amines.

(U) All terms beginning with “U.”

1. Uncombined water—The visible condensed water which is not bound, physically or chemically, to any air contaminant.

2. Unit—A fossil-fuel-fired combustion device such as a stationary boiler, combustion turbine, or combined cycle system. For the purpose of 10 CSR 10-6.390 only, unit is any diesel, lean-burn, or rich-burn stationary internal combustion engine as defined in this rule.

3. Unit load—The total (i.e., gross) output of a unit in any control period (or other specified time period) produced by combusting a given heat input of fuel expressed in terms of—

A. The total electrical generation (expressed as megawatt) produced by the unit, including generation for use within the plant; or

B. In the case of a unit that uses heat input for purposes other than electrical generation, the total steam flow (lb/hr) or total steam pressure (psia) produced by the unit, including steam for use by the unit.

4. Unit operating day—A calendar day in which a unit combusts any fuel.

5. Unit operating hour or hour of unit operation—Any hour or fraction of an hour during which a unit combusts fuel.

6. Unit operations—Discrete processing steps that occur within distinct equipment that are used to prepare reactants, facilitate reactions, separate and purify products, and recycle materials.

7. Untreated wood—Lumber and other wooden materials that have not been chemically treated for resistance to moisture, fire, fungi, insects, and other pests, or has not otherwise been treated or manufactured with chemicals, or that does not contain adhesives or resins. Untreated wood does not include plywood, particleboard, chipboard, and wood with other-than-insignificant quantities of paint, coating, or finish.

8. U.S. EPA—The United States Environmental Protection Agency.

9. User source—Any source that seeks to use ERCs to comply with an applicable emission reduction requirement.

10. Utilization—The heat input (expressed in mmBtu/time) for a unit. The unit's total heat input for the control period in each year will be determined in accordance with 40 CFR 75 if the NO_x budget unit was otherwise subject to the requirements of 40 CFR 75 for the year or will be based on the best available data reported to the administrator for the unit if the unit was not otherwise subject to the requirements of 40 CFR 75 for the year.

11. Utilization rate—The amount of an engine's capacity reported in horsepower-hours that is utilized.

(V) All terms beginning with "V."

1. Vacuum-metalizing coating—Topcoats and basecoats that are used in the vacuum-metalizing process.

[1./2. Vapor recovery system—A vapor gathering system capable of collecting the hydrocarbon vapors and gases discharged and a vapor disposal system capable of processing the hydrocarbon vapors and gases so as to limit their emission to the atmosphere.

3. Vapor recovery system modification—Any repair, replacement, alteration, or upgrading of Stage I or Stage II vapor recovery control equipment or gasoline dispensing equipment equipped with Stage II vapor recovery beyond normal maintenance of the system as permitted by the staff director.

[2./4. Vapor tight—When applied to a delivery vessel or vapor recovery system as one that sustains a pressure change of no more than seven hundred fifty (750) pascals (three inches (3") of H₂O) in five (5) minutes when pressurized to a gauge pressure of four thousand five hundred (4,500) pascals (eighteen inches (18") of H₂O) or evacuated to a gauge pressure of one thousand five hundred (1,500) pascals (six inches (6") of H₂O).

[3./5. Varnish—An unpigmented surface coating containing VOC and composed of resins, oils, thinners, and driers used to give a glossy surface to wood, metal, etc.

[4./6. Vehicle—Any mechanical device on wheels, designed primarily for use on streets, roads, or highways, except those propelled or drawn by human or animal power or those used exclusively on fixed rails or tracks.

7. Vehicle Inspection Database (VID)—The vehicle inspection database, operated and maintained by the department's contractor. All vehicle emissions inspection information is uploaded

by the MDAS inspection equipment to the VID on a real-time basis as soon as each inspection is complete.

8. Vehicle Inspection Report (VIR)—The vehicle inspection report printed by the MDAS inspection equipment at the conclusion of each vehicle's emissions inspection. The VIR is designed solely to provide information regarding the emissions inspection results to motorists and may not be valid for vehicle registration purposes.

9. Vent—A point of emission from a unit operation. Typical process vents from batch processes include condenser vents, vacuum pumps, steam ejectors, and atmospheric vents from reactors and other process vessels. Vents also include relief valve discharges. Equipment exhaust systems that discharge from unit operations also would be considered process vents.

10. Vent stream—Any gas stream discharge directly from a distillation operation or reactor process to the atmosphere or indirectly to the atmosphere after diversion through other process equipment. The vent stream excludes relief valve discharges and equipment leaks including, but not limited to, pumps, compressors, and valves.

[5./11. Vinyl coating—[The application of a] A functional, decorative, or protective topcoat[,] or printing [or] applied to vinyl-coated fabric or vinyl sheets.

[6./12. Visible emission—Any discharge of an air contaminant, including condensibles, which reduces the transmission of light or obscures the view of an object in the background.

[7./13. Volatile organic compounds (VOC)—[For all areas in Missouri, VOC means a]Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, that participates in atmospheric photochemical reactions to produce ozone.

A. The following compounds are not considered VOCs because of their known lack of participation in the atmospheric reactions to produce ozone:

CAS #	Compound
138495428	1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee)
431890	1,1,1,2,3,3,3-heptafluoropropane (HFC 227ea)
375031	1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane (n-C ₃ F ₇ OCH ₃ or HFE-7200)
690391	1,1,1,3,3,3-hexafluoropropane (HFC-236fa)
679867	1,1,2,2,3-pentafluoropropane (HFC-245ca)
24270664	1,1,2,3,3-pentafluoropropane (HFC-245ea)
431312	1,1,1,2,3-pentafluoropropane (HFC-245eb)
460731	1,1,1,3,3-pentafluoropropane (HFC-245fa)
431630	1,1,1,2,3,3-hexafluoropropane (HFC-236ea)
406586	1,1,1,3,3-pentafluorobutane (HFC-365mfc)
422560	3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)
507551	1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)
354234	1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a)
1615754	1-chloro-1-fluoroethane (HCFC-151a)
163702076	1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane (C ₄ F ₉ OCH ₃ or HFE-7100)
163702087	2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF ₃) ₂ CFCF ₂ OCH ₃)
163702054	1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane (C ₄ F ₉ OC ₂ H ₅ or HFE-7200)
163702065	2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF ₃) ₂ CFCF ₂ OC ₂ H ₅)
297730939	3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane (HFE-7500)
71556	1,1,1-trichloroethane (methyl chloroform)
67641	acetone
25497294	1-chloro 1,1-difluoroethane (HCFC-142b)
75456	chlorodifluoromethane (HCFC-22)

593704	chlorofluoromethane (HCFC-31)
76153	chloropentafluoroethane (CFC-115)
63938103	2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
75718	dichlorodifluoromethane (CFC-12)
1717006	1,1-dichloro 1-fluoroethane (HCFC-141b)
1320372	1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114)
34077877	1,1,1-trifluoro 2,2-dichloroethane (HCFC-123)
75376	1,1-difluoroethane (HFC-152a)
75105	difluoromethane (HFC-32)
74840	ethane
353366	ethylfluoride (HFC-161)
74828	methane
79209	methyl acetate
75092	methylene chloride (dichloromethane)
98566	parachlorobenzotrifluoride (PCBTF)
354336	pentafluoroethane (HFC-125)
127184	perchloroethylene (tetrachloroethylene)
359353	1,1,2,2-tetrafluoroethane (HFC-134)
811972	1,1,1,2-tetrafluoroethane (HFC-134a)
75694	trichlorofluoromethane (CFC-11)
26523648	1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113)
306832	1,1,1-trifluoro 2,2-dichloroethane (HCFC-123)
27987060	1,1,1-trifluoroethane (HFC-143a)
75467	trifluoromethane (HFC-23)
107313	methyl formate (HCOOCH_3),
0	1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethylpentane ($\text{C}_2\text{F}_5\text{CF}(\text{OCH}_3)\text{CF}(\text{CF}_3)_2$ or HFE-7300)
108327	propylene carbonate ($\text{C}_4\text{H}_6\text{O}_3$)
616386	dimethyl carbonate ($\text{C}_3\text{H}_6\text{O}_3$)
Perfluorocarbon compounds in the following classes:	
0	Cyclic, branched or linear, completely fluorinated alkanes
0	Cyclic, branched or linear, completely fluorinated ethers with no unsaturations
0	Cyclic, branched or linear, completely methylated siloxanes
0	Cyclic, branched or linear, completely fluorinated tertiary amines with no unsaturations
0	Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

VOC may be measured by a reference method, an equivalent method, an alternative method, or by procedures specified in either 10 CSR 10-6.030 or 40 CFR 60. These methods and procedures may measure nonreactive compounds, so an owner or operator must exclude these nonreactive compounds when determining compliance.

B. The following compound(s) are considered VOC for purposes of all record keeping, emissions reporting, photochemical dispersion modeling, and inventory requirements which apply to VOC and shall be uniquely identified in emission reports, but are not VOC for purposes of VOC emissions limitations or VOC content requirements.

CAS #	Compound
540885	t-butyl acetate

14. Volatile organic liquid—Any substance which is a liquid at storage conditions and which contains one (1) or more volatile organic compounds as defined in this rule.

15. Volatility—For purposes of 10 CSR 10-5.540 only, low volatility materials are defined as those which have a vapor pressure less than or equal to seventy-five (75) mmHg at twenty degrees Celsius (20 °C), moderate volatility materials have a vapor pressure greater than seventy-five (75) and less than or equal to one hundred fifty (150) mmHg at twenty degrees Celsius

(20 °C), and high volatility materials have a vapor pressure greater than one hundred fifty (150) mmHg at twenty degrees Celsius (20 °C). To evaluate VOC volatility for single unit operations that service numerous VOCs or for processes handling multiple VOCs, the weighted average volatility can be calculated from knowing the total amount of each VOC used in a year, and the individual component vapor pressure, per the equation in paragraph (1)(E)1. of 10 CSR 10-5.540.

(W) All terms beginning with "W."

1. Wall-fired boiler—A boiler that has pulverized coal burners arranged on the wall of the furnace. The burners have discrete, individual flames that extend perpendicularly into the furnace area.

2. Washcoat—A transparent special-purpose coating having a solids content by weight of twelve percent (12%) or less. They are applied over initial stains to protect and control color and to stiffen the wood fibers in order to aid sanding.

3. Washing—Purifying, cleaning, or removing impurities from coal by mechanical process, regardless of the cleaning medium used.

4. Washoff operations—Those operations in which organic solvent is used to remove coating from a substrate.

/1./5. Waste generator—The business entity that is directly responsible for the supervision of activities that result in the accumulation of friable asbestos-containing waste materials.

/2./6. Waxy, heavy pour crude oil—A crude oil with a pour point of fifty degrees Fahrenheit (50 °F) or higher as determined by the ASTM Standard D (97-66), *Test for Pour Point of Petroleum Oils*.

7. Waterproof resorcinol glue—A two (2)-part resorcinol-resin-based adhesive designed for applications where the bond line must be resistant to conditions of continuous immersion in fresh or salt water.

8. Web—A printing process where a continuous roll of substrate is fed into the press.

/3./9. Wet cleaning—The process of using water or other liquid and a wet brush, mop, cloth, sponge, or similar wet cleaning device to completely remove any residue of asbestos-containing materials from surfaces on which they may be located. This definition does not include the use of a wet vacuum cleaner.

10. Wet scrubber—An add-on air pollution control device that utilizes an alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

11. Wood furniture—Any product made of wood, a wood product such as rattan or wicker, or an engineered wood product such as particleboard that is manufactured under any of the following standard industrial classification codes: 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541, 2599, or 5712.

12. Wood furniture component—Any part that is used in the manufacture of wood furniture. Examples include, but are not limited to, drawer sides, cabinet doors, seat cushions, and laminated tops.

13. Wood furniture manufacturing operations—The finishing, cleaning, and washoff operations associated with the production of wood furniture or wood furniture components.

/4./14. Work area—A specific room or physically-isolated portion of a room, other than the space enclosed within a glove bag, in which friable asbestos-containing material is required to be handled in accordance with 10 CSR 10-6.240. The area is designated as a work area from the time that the room, or portion of it, is secured and access restrictions are in place. The area remains designated as a work area until the time that it has been cleaned in accordance with any requirements applicable to these operations.

15. Working day—A day, or any part of a day, in which a facility is engaged in manufacturing.

AUTHORITY: sections 643.050 and 643.055, RSMo 2000. Original rule filed Aug. 16, 1977, effective Feb. 11, 1978. For intervening history, please consult the **Code of State Regulations**. Amended: Filed Nov. 30, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed amendment will begin at 9:00 a.m., February 3, 2011. The public hearing will be held at the Doubletree Hotel and Conference Center, Ballrooms C, D, and E, 16625 Swingley Ridge Road, Chesterfield, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., February 10, 2011. Written comments shall be sent to Chief, Air Quality Planning Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 6—Air Quality Standards, Definitions, Sampling
and Reference Methods and Air Pollution Control
Regulations for the Entire State of Missouri

PROPOSED AMENDMENT

10 CSR 10-6.060 Construction Permits Required. The commission proposes to amend subsections (6)(D) and (8)(A). If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule that is in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/regs/index.html.

PURPOSE: This rule defines sources which are required to obtain permits to construct. It establishes requirements to be met prior to construction or modification of any of these sources. This rule also establishes permit fees and public notice requirements for certain sources and incorporates a means for unifying the processing of construction and operating permit issuance. This amendment incorporates permitting requirements that will cover new construction projects that emit greenhouse gas (GHG) emissions of at least one hundred thousand (100,000) tons per year or modifications at existing facilities that increase GHG emissions by at least seventy-five thousand (75,000) tons per year and clarifies rule text. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is a June 3, 2010, **Federal Register Notice**.

(6) General Permit Requirements for Construction or Emissions Increase Greater Than *De Minimis* Levels.

(D) Special Considerations for Stack Heights and Dispersion Techniques.

1. The degree of emission limitation required for control of any air pollutant under this rule shall not be affected in any manner by—

A. [So much] **That amount** of the stack height of any installation [as] **which** exceeds good engineering practice (GEP) stack height; or

B. Any other dispersion technique.

2. Paragraph (6)(D)1. of this rule shall not apply to stack heights on which construction commenced on or before December 31, 1970, or to dispersion techniques implemented on or before December 31, 1970.

3. Before the permitting authority issues a permit under this rule based on stack heights that exceed GEP, the permitting authority must notify the public of the availability of the demonstration study and must provide opportunity for a public hearing on it.

4. This paragraph does not require that actual stack height or the use of any dispersion technique be restricted in any manner.

(8) Attainment and Unclassified Area Permits.

(A) All of the subsections of 40 CFR 52.21, other than (a) Plan disapproval, (q) Public participation, (s) Environmental impact statements, and (u) Delegation of authority, promulgated as of July 1, [2007, including the revisions published at 72 FR 24078 (effective July 2, 2007) and 72 FR 72617 (effective January 22, 2008),] **2009, including the revision published at 75 FR 31606-07 (effective August 2, 2010)**, are hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions.

AUTHORITY: section 643.050, RSMo 2000. Original rule filed Dec. 10, 1979, effective April 11, 1980. For intervening history, please consult the **Code of State Regulations**. Amended: Filed Nov. 30, 2010.

PUBLIC COST: This proposed amendment will cost state agencies or political subdivisions \$5,050,000 over the life of the rule. The cost for fiscal year 2013 is estimated to be six hundred thirty-one thousand two hundred fifty dollars (\$631,250). Note the attached fiscal note for assumptions that apply.

PRIVATE COST: This proposed amendment will cost private entities \$20,200,000 over the life of the rule. The cost for fiscal year 2013 is estimated to be \$2,525,000. Note the attached fiscal note for assumptions that apply.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed amendment will begin at 9:00 a.m., February 3, 2011. The public hearing will be held at the Doubletree Hotel and Conference Center, Ballrooms C, D, and E, 16625 Swingley Ridge Road, Chesterfield, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., February 10, 2011. Written comments shall be sent to Chief, Air Quality Planning Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

**FISCAL NOTE
PUBLIC COST**

- I. Department Title:** Department of Natural Resources
Division Title: Air Conservation Commission
Chapter Title: Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

Rule Number and Name:	10 CSR 10-6.060 Construction Permits Required
Type of Rulemaking:	Amendment

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Cost of Compliance in the Aggregate
Publically owned greenhouse gas sources	
- Phase 1	\$0
- Phase 2	\$1,262,500
- Continuing Phase 2	\$3,787,500
Total – ten (10) years	\$5,050,000

III. WORKSHEET

Permitting Application

Phase 1 - Sources are already subject to Prevention of Significant Deterioration (PSD) due to their non-Greenhouse Gas (GHG) pollutants
Zero (0) PSD permits x \$84,500 application = \$0

Phase 2 - Sources subject to PSD due to their GHG pollutants
One (1) PSD permit x \$84,500 application = \$84,500

Continuing Phase 2 - Sources subject to PSD due to their GHG pollutants
One (1) PSD permit every 2 years x \$84,500 application = \$84,500 x three (one every other year for six years) = \$253,500

Summary of Permitting Application Worksheet Costs

	1/2011 – 6/2011	7/2011 – 6/2013	7/2013 – 6/2020
Phase 1	\$0	-	-
Phase 2	-	\$84,500	-

Continuing Phase 2	-	-	\$253,500
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GHG Emission Reduction Measures

Phase 1 - Sources are already subject to PSD due to their non-GHG pollutants

Zero (0) sources = \$0

Phase 2 - Sources subject to PSD due to their GHG pollutants

One (1) PSD source

Replace/upgrade burners	\$ 75,000
Tuning	\$ 3,000
Optimization	\$ 100,000
<u>Instrumentation and controls</u>	<u>\$1,000,000</u>
Total	\$1,178,000

Continuing Phase 2 - Sources subject to PSD due to their GHG pollutants

One (1) PSD source every 2 years x \$1,178,000 = \$1,178,000 x three (one every other year for six years) = \$3,534,000

Summary of GHG Emission Reduction Measures

	1/2011 – 6/2011	7/2011 – 6/2013	7/2013 – 6/2020
Phase 1	\$0	-	-
Phase 2	-	\$1,178,000	-
Continuing Phase 2	-	-	\$3,534,000

Summary of Combined Permitting Application and Emission Reduction Measures

	Phase 1	Phase 2	Continuing Phase 2
Permitting	\$0	\$84,500	\$253,500
Reduction Measures	\$0	\$1,178,000	\$3,534,000
Total	\$0	\$1,262,500	\$3,787,500
Total – All Phases	\$5,050,000		

Fiscal Year 2012	\$631,250
Fiscal Year 2013	\$631,250
Fiscal Year 2014	\$631,250
Fiscal Year 2015	\$631,250
Fiscal Year 2016	\$631,250
Fiscal Year 2017	\$631,250
Fiscal Year 2018	\$631,250
Fiscal Year 2019	\$631,250

IV. ASSUMPTIONS

1. During the first phase of the rule, PSD requirements will apply to sources' GHG emissions only if such sources are already subject to PSD due to their non-GHG pollutants. Based on information from previous years, it is estimated that two (2) PSD construction permits will be affected during Phase 1 of the program which runs from January 2, 2011 – June 30, 2011. For this fiscal note, we assume neither of these two (2) sources will be publically owned. Phase 1 occurs prior to the effective date of this rule so there is no cost.
2. During the second phase of the rule additional large sources of GHG emissions with the potential to emit at least 100,000 tons per year of CO₂ equivalent will become subject to PSD requirements. For Phase 2 of the program, which runs from July 1, 2011 – June 30, 2013, it is estimated that five (5) PSD construction permits will be affected. For this fiscal note, we assume that only one (1) of those sources will be publically owned. The Environmental Protection Agency (EPA) estimates that nationwide, sources that undergo PSD permitting actions will spend an average cost ranging from \$59,000 to \$84,500 to prepare the application and receive the permit. The range in cost is due to whether the source is considered an industrial source or a commercial/residential source. In generating the fiscal impact, since we have no way of knowing what type of source it will be, the more conservative (higher) cost was used.
3. EPA commits to undertake another rulemaking, to begin in 2011 and conclude no later than July 1, 2012, that will outline an additional step for phasing in GHG permitting (Phase 3) to review permitting for smaller GHG emission sources. EPA will not require permits for smaller sources in Phase 3 or through any other action until at least April 30, 2016. Since there are no details on Phase 3 that could be used in estimating the fiscal impact, for purposes of this fiscal note, we continue Phase 2 into the future as it currently stands using the assumptions from Phase 2. Since the one (1) source in Phase 2 is over a two (2) year period, we use half a source per year or one (1) source every two (2) years in continuing Phase 2.
4. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be ten (10) years beginning with Phase 2 although the duration of the rule is indefinite. If the life of the rule extends beyond ten years, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.
5. The actual costs to sources to install Best Available Control Technology (BACT) controls, while uncertain at this point, would likely add additional costs. In most cases for GHGs, this BACT process should lead to implementing energy efficiency measures, which generally cost less than add on emission controls and can result in cost savings. For the purpose of this fiscal note, we assume a hypothetical industrial, commercial, and industrial (ICI) boiler source is required to reduce GHG emissions. A facility having an ICI boiler is the most common type of source as indicated by

EPA. The emission reduction measures and their costs come from EPA's white paper Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Industrial, Commercial, and Institutional Boilers, October 2010. The source has a 30 million BTU boiler and will implement the following GHG emission reduction measures: replace/upgrade burners at a cost of \$2,500 per million BTU, combustion system tuning at a cost of \$3,000, combustion and boiler performance optimization at a cost of \$100,000, and upgrade instrumentation and controls at a cost of \$1,000,000. The costs over the first ten (10) years uses the same assumptions as found in assumptions 1-4 listed above.

**FISCAL NOTE
PRIVATE COST**

- V. Department Title:** Department of Natural Resources
Division Title: Air Conservation Commission
Chapter Title: Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

Rule Number and Title:	10 CSR 10-6.060 Construction Permits Required
Type of Rulemaking:	Amendment

II. SUMMARY OF FISCAL IMPACT

Estimate of the number of entities by class which would likely be affected by the adoption of the rule:	Classification by types of the business entities which would likely be affected:	Estimate in the aggregate as to the cost of compliance with the rule by the affected entities:
Phase 1 – two (2) entities	Sources are already subject to Prevention of Significant Deterioration (PSD) or title V due to their non-Greenhouse Gas (GHG) pollutants	\$0
Phase 2 – four (4) entities	Sources subject to PSD or title V due to their GHG pollutants	\$5,050,000
Continuing Phase 2 – two (2) entities per year	Sources subject to PSD or title V due to their GHG pollutants	\$15,150,000
Total – ten (10) years		\$20,200,000

III. WORKSHEET

Permitting Application

Phase 1 - Sources are already subject to PSD due to their non-GHG pollutants
Two (2) PSD permits x \$0 application = \$0

Phase 2 - Sources subject to PSD due to their GHG pollutants
Four (4) PSD permits x \$84,500 application = \$338,000

Continuing Phase 2 - Sources subject to PSD due to their GHG pollutants
Two (2) PSD permits per year x \$84,500 application = \$169,000 x six (6) years =
\$1,014,000

Summary of Permitting Application Worksheet Costs

	1/2011 – 6/2011	7/2011 – 6/2013	7/2013 – 6/2020
Phase 1	\$0	-	-
Phase 2	-	\$338,000	-
Continuing Phase 2	-	-	\$1,014,000

GHG Emission Reduction Measures

Phase 1 - Sources are already subject to PSD due to their non-GHG pollutants

Zero (0) sources = \$0

Phase 2 - Sources subject to PSD due to their GHG pollutants

Four (4) PSD sources

	<u>1 source</u>	<u>4 sources</u>
Replace/upgrade burners	\$ 75,000	\$ 300,000
Tuning	\$ 3,000	\$ 12,000
Optimization	\$ 100,000	\$ 400,000
Instrumentation and controls	\$1,000,000	\$4,000,000
Total	\$1,178,000	\$4,712,000

Continuing Phase 2 - Sources subject to PSD due to their GHG pollutants

Two (2) PSD sources per year x \$1,178,000 = \$2,356,000 x six years = \$14,136,000

Summary of GHG Emission Reduction Measures

	1/2011 – 6/2011	7/2011 – 6/2013	7/2013 – 6/2020
Phase 1	\$0	-	-
Phase 2	-	\$4,712,000	-
Continuing Phase 2	-	-	\$14,136,000

Summary of Combined Permitting Application and Emission Reduction Measures

	Phase 1	Phase 2	Continuing Phase 2
Permitting	\$0	\$338,000	\$1,014,000
Reduction Measures	\$0	\$4,712,000	\$14,136,000
Total	\$0	\$5,050,000	\$15,150,000
Total – All Phases	\$20,200,000		

Fiscal Year 2012	\$2,525,000
Fiscal Year 2013	\$2,525,000
Fiscal Year 2014	\$2,525,000
Fiscal Year 2015	\$2,525,000
Fiscal Year 2016	\$2,525,000
Fiscal Year 2017	\$2,525,000
Fiscal Year 2018	\$2,525,000
Fiscal Year 2019	\$2,525,000

VI. ASSUMPTIONS

1. During the first phase of the rule, PSD requirements will apply to sources' GHG emissions only if such sources are already subject to PSD due to their non-GHG pollutants. Based on information from previous years, it is estimated that two (2) PSD construction permits will be affected during Phase 1 of the program which runs from January 2, 2011 – June 30, 2011. For this fiscal note, we assume that those two (2) sources will be privately owned. Phase 1 occurs prior to the effective date of this rule so there is no cost.
2. During the second phase of the rule additional large sources of GHG emissions with the potential to emit at least 100,000 tons per year of CO₂ equivalent will become subject to PSD and title V requirements. For Phase 2 of the program, which runs from July 1, 2011 – June 30, 2013, it is estimated that five (5) PSD construction permits will be affected. For this fiscal note, we assume that four (4) of those sources will be privately owned. The Environmental Protection Agency (EPA) estimates that nationwide, sources that undergo PSD permitting actions will spend an average cost ranging from \$59,000 to \$84,500 to prepare the application and receive the permit. The range in cost is due to whether the source is considered an industrial source or a commercial/residential source. In generating the fiscal impact, since we have no way of knowing what type of source it will be, the more conservative (higher) cost was used.
3. EPA commits to undertake another rulemaking, to begin in 2011 and conclude no later than July 1, 2012, that will outline an additional step for phasing in GHG permitting (Phase 3) to review permitting for smaller GHG emission sources. EPA will not require permits for smaller sources in Phase 3 or through any other action until at least April 30, 2016. Since there are no details on Phase 3 that could be used in estimating the fiscal impact, for purposes of this fiscal note, we continue Phase 2 into the future as it currently stands using the assumptions from Phase 2. Since the four (4) sources in Phase 2 is over a two (2) year period, we use two (2) sources per year in continuing Phase 2.
4. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be ten (10) years beginning with Phase 2 although the duration of the rule is indefinite. If the life of the rule extends beyond ten years, the

annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.

5. The actual costs to sources to install Best Available Control Technology (BACT) controls, while uncertain at this point, would likely add additional costs. In most cases for GHGs, this BACT process should lead to implementing energy efficiency measures, which generally cost less than add on emission controls and can result in cost savings. For the purpose of this fiscal note, we assume a hypothetical industrial, commercial, and industrial (ICI) boiler source is required to reduce GHG emissions. A facility having an ICI boiler is the most common type of source as indicated by EPA. The emission reduction measures and their costs come from EPA's white paper Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Industrial, Commercial, and Institutional Boilers, October 2010. The source has a 30 million BTU boiler and will implement the following GHG emission reduction measures: replace/upgrade burners at a cost of \$2,500 per million BTU, combustion system tuning at a cost of \$3,000, combustion and boiler performance optimization at a cost of \$100,000, and upgrade instrumentation and controls at a cost of \$1,000,000. The costs over the first ten (10) years uses the same assumptions as found in assumptions 1-4 listed above.

Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 6—Air Quality Standards, Definitions, Sampling
and Reference Methods and Air Pollution Control
Regulations for the Entire State of Missouri

PROPOSED AMENDMENT

10 CSR 10-6.065 Operating Permits. The commission proposes to amend section (2) and subsection (7)(A). If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule that is in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/regs/index.html.

PURPOSE: This rule defines air contaminant sources which are required to obtain operating permits and establishes procedures for obtaining and complying with operating permits; it does not establish any air quality standards or guidelines. This amendment incorporates permitting requirements that will cover new construction projects that emit greenhouse gas (GHG) emissions of at least one hundred thousand (100,000) tons per year or modifications at existing facilities that increase GHG emissions by at least seventy-five thousand (75,000) tons per year, removes definitions that will now be found in regulation 10 CSR 10-6.020, and streamlines the public notice procedure to align with the Federal Register and allow the flexibility to publish notices on the web. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is a June 3, 2010, Federal Register Notice.

(2) Definitions.

[(A) Air Pollutant—Agent, or combination of agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the staff director has identified such precursor(s) for the particular purpose for which the term "air pollutant" is used.

(B) Basic state installations—Installations which meet any of the following criteria, but are not part 70 installations:

1. Emit or have the potential to emit any air pollutant in an amount greater than the de minimis levels. The fugitive emissions of an installation shall not be considered unless the installation belongs to one of the source categories listed in 10 CSR 10-6.020(3)(B), Table 2; or

2. Either of the following criteria, provided the U.S. EPA administrator has deferred a decision on whether the installation would be subject to part 70:

A. Are subject to a standard, limitation or other requirement under section 111 of the Act, including area sources subject to a standard, limitation or other requirement under section 111 of the Act; or

B. Are subject to a standard or other requirement under section 112 of the Act, except that a source is not required to obtain a permit solely because it is subject to rules or requirements under section 112(r) of the Act, including area sources subject to a standard or other requirement under section 112 of the Act, except that an area source is not required to obtain a permit solely because it is subject to regulations or requirements under section 112(r) of the Act.

(C) Intermediate installations are part 70 installations that become basic state installations based on their potential to emit by accepting the imposition of voluntarily agreed to federally-enforceable limitations on the type of materials combusted or processed, operating rates, hours of operation, or emission rates more stringent than those otherwise required by rule or regulation.]

[(D)](A) Part 70 installations—Installations to which the part 70 operating permit requirements of this rule apply, in accordance with the following criteria:

1. They emit or have the potential to emit, in the aggregate, ten (10) tons per year (tpy) or more of any hazardous air pollutant, other than radionuclides, or twenty-five (25) tpy or more of any combination of these hazardous air pollutants or such lesser quantity as the administrator may establish by rule. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not these units are in a contiguous area or under common control, to determine whether these units or stations are subject installations. For sources of radionuclides, the criteria shall be established by the administrator;

*2. They emit or have the potential to emit one hundred (100) tpy or more of any air pollutant **subject to regulation**, including all fugitive air pollutants. The fugitive emissions of an installation shall not be considered unless the installation belongs to one (1) of the source categories listed in 10 CSR 10-6.020(3)(B), Table 2. **Subject to regulation means, for any air pollutant, that the pollutant is subject to either a provision in the Clean Air Act or a nationally-applicable regulation codified by the administrator in 40 CFR Parts 50-99, that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit, or restrict the quantity of emissions of that pollutant released from the regulated activity, except that—***

A. Greenhouse gases (GHGs), the air pollutant defined as the aggregate group of six (6) greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, shall not be subject to regulation unless, as of July 1, 2011, the GHG emissions are at a stationary source emitting or having the potential to emit one hundred thousand (100,000) tpy carbon dioxide (CO₂) equivalent emissions; and

B. The term tpy CO₂ equivalent emissions (CO₂e) shall represent an amount of GHGs emitted and shall be computed by multiplying the mass amount of emissions (tpy), for each of the six (6) greenhouse gases in the pollutant GHGs, by the gas's associated global warming potential published at Table A-1 to subpart A of 40 CFR Part 98, promulgated as of October 30, 2009, and summing the resultant value for each to compute a tpy CO₂e. Table A-1 is hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions;

3. They are located in nonattainment areas or ozone transport regions.

A. For ozone nonattainment areas, sources with the potential to emit one hundred (100) tpy or more of volatile organic compounds or oxides of nitrogen in areas classified as "marginal" or "moderate," fifty (50) tpy or more in areas classified as "serious," twenty-five (25) tpy or more in areas classified as "severe," and ten (10) tpy or more in areas classified as "extreme"; except that the references in this paragraph to one hundred (100), fifty (50), twenty-five (25), and ten (10) tpy of nitrogen oxides shall not apply with respect to any source for which the administrator has made a finding, under section 182(f)(1) or (2) of the Act, that requirements under section 182(f) of the Act do not apply;

B. For ozone transport regions established pursuant to section 184 of the Act, sources with the potential to emit fifty (50) tpy or more of volatile organic compounds;

C. For carbon monoxide nonattainment areas that are classified as "serious," and in which stationary sources contribute significantly to carbon monoxide levels as determined under rules issued by the administrator, sources with the potential to emit fifty (50) tpy or more of carbon monoxide; and

D. For particulate matter less than ten (10) micrometers (PM_{10}) nonattainment areas classified as "serious," sources with the potential to emit seventy (70) tpy or more of PM_{10} ;

4. They are affected sources under Title IV of the 1990 Act;

5. They are solid waste incinerators subject to section 129(e) of the Act;

6. Any installation in a source category designated by the administrator as a part 70 source pursuant to 40 CFR 70.3; and

7. Installations that would be part 70 sources strictly due to the following criteria are not subject to part 70 source requirements until the administrator subjects this installation to these requirements by rule:

A. They are subject to a standard, limitation, or other requirement under section 111 of the Act, including area sources; or

B. They are subject to a standard or other requirement under section 112 of the Act, except that a source, including an area source, is not required to obtain a permit solely because it is subject to rules or requirements under section 112(r) of the Act.

[(E)](B) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10-6.020.

(7) Public Participation. Except for proposed modifications qualifying for the minor permit modification procedures, all permit proceedings, including initial permit issuance, significant permit modifications, and permit renewals, shall be conducted in accordance with the procedures for public participation in this section (7).

(A) Drafts for Public Comment and Public Notice. After receipt of an application for a permit, significant permit modification, or permit renewal, and no later than sixty (60) days before the deadline for issuance of a permit, significant permit modification, or permit renewal for the administrator's review, the permitting authority shall issue a draft permit and solicit comment from the applicant, affected states, and the public as follows:

1. The permitting authority shall provide notice to the public by—

A. Making available in at least one (1) location in the area in which the installation is located a public file containing copies of all materials that the applicant has submitted other than those granted confidential treatment, copies of the preliminary determination and draft permit, modified permit or permit renewal, and a copy or summary of other materials, if any, considered in making the preliminary permit determination; or

B. State publication or web site designed to give general public notice details of the proposed action or [P]ublishing[, by advertisement] in at least one (1) newspaper of general circulation in the area in which the installation is located, a notice of the application, the preliminary permit determination, the location of the public file, the procedures for submitting written comments and for requesting a public hearing, and the date, time, and location for a public hearing if one is to be held.

2. Copies of the notice required shall be sent to the applicant and to the representatives of affected states designated by those states to receive the notices.

AUTHORITY: section 643.050, RSMo 2000. Original rule filed Sept. 2, 1993, effective May 9, 1994. For intervening history, please consult the Code of State Regulations. Amended: Filed Nov. 30, 2010.

PUBLIC COST: This proposed amendment will cost state agencies or

political subdivisions \$4,500,800 over the life of the rule. The cost for fiscal year 2013 is estimated to be five hundred eighty thousand dollars (\$580,000). Note the attached fiscal note for assumptions that apply.

PRIVATE COST: This proposed amendment will cost private entities \$41,620,000 over the life of the rule. The cost for fiscal year 2013 is estimated to be \$5,220,000. Note the attached fiscal note for assumptions that apply.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed amendment will begin at 9:00 a.m., February 3, 2011. The public hearing will be held at the Doubletree Hotel and Conference Center, Ballrooms C, D, and E, 16625 Swingley Ridge Road, Chesterfield, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., February 10, 2011. Written comments shall be sent to Chief, Air Quality Planning Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

**FISCAL NOTE
PUBLIC COST**

- I. Department Title:** Department of Natural Resources
Division Title: Air Conservation Commission
Chapter Title: Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

Rule Number and Name:	10 CSR 10-6.065 Operating Permits
Type of Rulemaking:	Amendment

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Cost of Compliance in the Aggregate
Publically owned greenhouse gas sources	
- Phase 1	\$0
- Phase 2	\$1,160,000
- Continuing Phase 2	\$3,340,800
Total – ten (10) years	\$4,500,800

III. WORKSHEET

Phase 1 - Sources are already subject to title V due to their non-Greenhouse Gas (GHG) pollutants

Five (5) already required to obtain operating permits x \$0 = \$0

Phase 2 - Sources subject to title V due to their GHG pollutants

Twenty-five (25) title V operating permits x \$46,400 application = \$1,160,000

Continuing Phase 2 - Sources subject to title V due to their GHG pollutants

Twelve (12) title V operating permits per year x \$46,400 application = \$556,800 x six (6) years = \$3,340,800

Summary of Permitting Application Worksheet Costs

	1/2011 – 6/2011	7/2011 – 6/2013	7/2013 – 6/2020
Phase 1	\$0	-	-
Phase 2	-	\$1,160,000	-
Continuing Phase 2	-	-	\$3,340,800
Total – All Phases		\$4,500,800	

Fiscal Year 2012	\$580,000
Fiscal Year 2013	\$580,000
Fiscal Year 2014	\$556,800
Fiscal Year 2015	\$556,800
Fiscal Year 2016	\$556,800
Fiscal Year 2017	\$556,800
Fiscal Year 2018	\$556,800
Fiscal Year 2019	\$556,800

VII. ASSUMPTIONS

1. During the first phase of the rule title V requirements will apply to sources' GHG emissions only if such sources are already subject to title V due to their non-GHG pollutants. Based on information from previous years, it is estimated that eighty (80) operating permits will be affected during Phase 1 of the program which runs from January 2, 2011 – June 30, 2011. For this fiscal note, we assume that five (5) sources will be publically owned. Title V operating permits do not contain new requirements; the source will address GHG emissions by listing applicable requirements for GHG emissions. Currently, unless a source goes through PSD permitting for GHG emissions in this time frame, the only applicable requirement for GHG emissions is the federal Greenhouse Gas Reporting Rule. Adding the listing of the federal Greenhouse Gas Reporting Rule is not expected to cost the source any additional money. Phase 1 occurs prior to the effective date of this rule so there is no cost.
2. During the second phase of the rule additional large sources of GHG emissions with the potential to emit at least 100,000 tons per year of CO₂ equivalent will become subject to title V requirements. For Phase 2 of the program, which runs from July 1, 2011 – June 30, 2013, it is estimated that two hundred fifty (250) operating permits will be affected. For this fiscal note, we assume that twenty-five (25) sources will be publically owned. The Environmental Protection Agency (EPA) estimates that nationwide, sources that would need title V operating permits will spend an average cost ranging from \$23,200 to \$46,400 to prepare the application and receive the permit. The range in cost is due to whether the source is considered an industrial source or a commercial/residential source. In generating the fiscal impact, since we have no way of knowing what type of source it will be, the more conservative (higher) cost was used.
3. EPA commits to undertake another rulemaking, to begin in 2011 and conclude no later than July 1, 2012, that will outline an additional step for phasing in GHG permitting (Phase 3) to review permitting for smaller GHG emission sources. EPA will not require permits for smaller sources in Phase 3 or through any other action until at least April 30, 2016. Since there are no details on Phase 3 that could be used in estimating the fiscal impact, for purposes of this fiscal note, we continue Phase 2 into the future as it currently stands using the assumptions from Phase 2. Since the

twenty-five (25) sources in Phase 2 is over a two (2) year period, we use twelve (12) sources per year in continuing Phase 2.

4. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be ten (10) years beginning with Phase 2 although the duration of the rule is indefinite. If the life of the rule extends beyond ten years, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.

**FISCAL NOTE
PRIVATE COST**

- VIII. Department Title:** Department of Natural Resources
Division Title: Air Conservation Commission
Chapter Title: Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

Rule Number and Title:	10 CSR 10-6.065 Operating Permits
Type of Rulemaking:	Amendment

II. SUMMARY OF FISCAL IMPACT

Estimate of the number of entities by class which would likely be affected by the adoption of the rule:	Classification by types of the business entities which would likely be affected:	Estimate in the aggregate as to the cost of compliance with the rule by the affected entities:
Phase 1 – seventy-five (75) entities	Sources are already subject to Prevention of Significant Deterioration (PSD) or title V due to their non-Greenhouse Gas (GHG) pollutants	\$0
Phase 2 – two hundred twenty-five (225) entities	Sources subject to PSD or title V due to their GHG pollutants	\$10,440,000
Continuing Phase 2 – one hundred twelve (112) per year	Sources subject to PSD or title V due to their GHG pollutants	\$31,180,000
Total – ten (10) years		\$41,620,000

III. WORKSHEET

Phase 1 - Sources are already subject to PSD due to their non-GHG pollutants
 Seventy-five (75) already required to obtain operating permits x \$0 = \$0

Phase 2 - Sources subject to PSD due to their GHG pollutants
 Two hundred twenty-five (225) title V operating permits x \$46,400 application =
 \$10,440,000

Continuing Phase 2 - Sources subject to PSD due to their GHG pollutants
 One hundred twelve (112) per year title V operating permits x \$46,400 application =
 \$5,196,800 x six (6) years = \$31,180,800

Summary of Permitting Application Worksheet Costs

	1/2011 – 6/2011	7/2011 – 6/2013	7/2013 – 6/2020
Phase 1	\$0	-	-
Phase 2	-	\$10,440,000	-
Continuing Phase 2	-	-	\$31,180,000
Total – All Phases		\$41,620,000	

Fiscal Year 2012	\$5,220,000
Fiscal Year 2013	\$5,220,000
Fiscal Year 2014	\$5,196,667
Fiscal Year 2015	\$5,196,667
Fiscal Year 2016	\$5,196,667
Fiscal Year 2017	\$5,196,667
Fiscal Year 2018	\$5,196,667
Fiscal Year 2019	\$5,196,667

IX. ASSUMPTIONS

1. During the first phase of the rule title V requirements will apply to sources' GHG emissions only if such sources are already subject to title V due to their non-GHG pollutants. Based on information from previous years, it is estimated that eighty (80) operating permits will be affected during Phase 1 of the program which runs from January 2, 2011 – June 30, 2011. For this fiscal note, we assume that seventy-five (75) sources will be privately owned. Title V operating permits do not contain new requirements; the source will address GHG emissions by listing applicable requirements for GHG emissions. Currently, unless a source goes through PSD permitting for GHG emissions in this time frame, the only applicable requirement for GHG emissions is the federal Greenhouse Gas Reporting Rule. Adding the listing of the federal Greenhouse Gas Reporting Rule is not expected to cost the source any additional money. Phase 1 occurs prior to the effective date of this rule so there is no cost.
2. During the second phase of the rule additional large sources of GHG emissions with the potential to emit at least 100,000 tons per year of CO₂ equivalent will become subject to title V requirements. For Phase 2 of the program, which runs from July 1, 2011 – June 30, 2013, it is estimated that two hundred fifty (250) operating permits will be affected. For this fiscal note, we assume that two hundred twenty-five (225) sources will be privately owned. The Environmental Protection Agency (EPA) estimates that nationwide, sources that would need title V operating permits will spend an average cost ranging from \$23,200 to \$46,400 to prepare the application and receive the permit. The range in cost is due to whether the source is considered an

industrial source or a commercial/residential source. In generating the fiscal impact, since we have no way of knowing what type of source it will be, the more conservative (higher) cost was used.

3. EPA commits to undertake another rulemaking, to begin in 2011 and conclude no later than July 1, 2012, that will outline an additional step for phasing in GHG permitting (Phase 3) to review permitting for smaller GHG emission sources. EPA will not require permits for smaller sources in Phase 3 or through any other action until at least April 30, 2016. Since there are no details on Phase 3 that could be used in estimating the fiscal impact, for purposes of this fiscal note, we continue Phase 2 into the future as it currently stands using the assumptions from Phase 2. Since the two hundred twenty-five (225) sources in Phase 2 is over a two (2) year period, we use one hundred twelve (112) sources per year in continuing Phase 2.
4. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be ten (10) years beginning with Phase 2 although the duration of the rule is indefinite. If the life of the rule extends beyond ten years, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.

**Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 6—Air Quality Standards, Definitions, Sampling
and Reference Methods and Air Pollution Control
Regulations for the Entire State of Missouri**

PROPOSED AMENDMENT

10 CSR 10-6.200 Hospital, Medical, Infectious Waste Incinerators. The commission proposes to amend subsections (1)(A), (1)(H), (1)(I), (4)(A)–(4)(C), and (4)(F) and sections (2), (3), and (5). If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/reg/index.html.

PURPOSE: This rule establishes emission limits for existing hospital, medical, and infectious waste incinerators. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is the *Federal Register* Notice dated October 6, 2009, regarding Hospital, Medical, Infectious Waste Incinerators.

PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Applicability.

(A) Except as provided in subsection (1)(B) through (H) of this rule, this rule applies to each individual hospital or medical/infectious waste incinerator (HMIWI) [for which construction was commenced on or before June 20, 1996.]—

1. For which construction was commenced after June 20, 1996, but no later than December 1, 2008; or

2. For which modification is commenced after March 16, 1998, but no later than April 6, 2010.

(H) Physical or operational changes made to an [existing] HMIWI unit solely for the purpose of complying with this rule are not considered a modification and do not result in an [existing] HMIWI unit becoming subject to the provisions of 40 CFR part 60 subpart Ec.

(I) [Beginning September 15, 2000, designated facilities] **Facilities** subject to this rule shall operate pursuant to a permit issued under the permitting authorities operating permit program.

(2) Definitions.

(I)(A) *Batch HMIWI* means an HMIWI that is designed such that neither waste charging nor ash removal can occur during combustion.

(B) *Biologicals* means preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

(C) *Bypass stack* means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

(D) *Chemotherapeutic waste* means waste material resulting from the production or use of antineoplastic agents used

for the purpose of stopping or reversing the growth of malignant cells.

(E) *Co-fired combustor* means a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, ten percent (10%) or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar-quarter basis. For purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other wastes" when calculating the percentage of hospital waste and medical/infectious waste combusted.

(F) *Continuous HMIWI* means an HMIWI that is designed to allow waste charging and ash removal during combustion.

(G) *Department* means the Department of Natural Resources.

(H) *Dioxins/furans* means the combined emission of tetra-through octa-chlorinated dibenzo-para-dioxins and dibenzofurans.

(I) *Director* means the director of the Department of Natural Resources.

(J) *Dry scrubber* means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the HMIWI exhaust stream forming a dry powder material.

(K) *Hospital* means any facility which has an organized medical staff, maintains at least six (6) inpatient beds, and where the primary function of the institution is to provide diagnostic and therapeutic patient services and continuous nursing care primarily to human inpatients who are not related and who stay on average in excess of twenty-four (24) hours per admissions. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill but who require continuing medical supervision.

(L) *Hospital/medical/infectious waste incinerator or HMIWI or HMIWI unit* means any device that combusts any amount of hospital waste and/or medical/infectious waste.

(M) *Hospital waste* means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

(N) *Intermittent HMIWI* means an HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

(O) *Large HMIWI* means an HMIWI whose maximum design waste burning capacity is more than five hundred (500) pounds per hour, or a continuous or intermittent HMIWI whose maximum charge rate is more than five hundred (500) pounds per hour, or a batch HMIWI whose maximum charge rate is more than four thousand (4,000) pounds per day.

(P) *Low-level radioactive waste* means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

(Q) *Maximum charge rate* means for continuous and intermittent HMIWI, one hundred ten percent (110%) of the lowest three (3)-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits or for batch HMIWI, one

hundred ten percent (110%) of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(R) Maximum fabric filter inlet temperature means one hundred ten percent (110%) of the lowest three (3)-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(S) Maximum flue gas temperature means one hundred ten percent (110%) of the lowest three (3)-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

(T) Medical/infectious waste means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in paragraphs (2)(T)1. through (2)(T)7. below. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in 40 CFR part 261; household waste, as defined in 40 CFR part 261.4(b)(1); ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials identified in 40 CFR part 261.4(a)(1).

1. Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.

2. Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.

3. Human blood and blood products including:

A. Liquid waste human blood;

B. Products of blood;

C. Items saturated and/or dripping with human blood; and

D. Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also included in this category.

4. Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.

5. Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.

6. Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect

others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.

7. Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

(U) Medium HMIWI means an HMIWI whose maximum design waste burning capacity is more than two hundred (200) pounds per hour but less than or equal to five hundred (500) pounds per hour, or a continuous or intermittent HMIWI whose maximum charge rate is more than two hundred (200) pounds per hour but less than or equal to five hundred (500) pounds per hour, or a batch HMIWI whose maximum charge rate is more than one thousand six hundred (1,600) pounds per day but less than or equal to four thousand (4,000) pounds per day.

(V) Minimum dioxin/furan sorbent flow rate means ninety percent (90%) of the highest three (3)-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(W) Minimum Hg sorbent flow rate means ninety percent (90%) of the highest three (3)-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

(X) Minimum hydrogen chloride (HCl) sorbent flow rate means ninety percent (90%) of the highest three (3)-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

(Y) Minimum horsepower or amperage means ninety percent (90%) of the highest three (3)-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limit.

(Z) Minimum pressure drop across the wet scrubber means ninety percent (90%) of the highest three (3)-hour average pressure drop across the wet scrubber particulate matter (PM) control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.

(AA) Minimum scrubber liquor flow rate means ninety percent (90%) of the highest three (3)-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(BB) Minimum scrubber liquor pH means ninety percent (90%) of the highest three (3)-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all HCl emission limits.

(CC) Minimum secondary chamber temperature means ninety percent (90%) of the highest three (3)-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, carbon monoxide (CO), or dioxin/furan emission limits.

(DD) Pathological waste means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

(EE) Pyrolysis means the endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

(FF) *Small HMIWI* means an HMIWI whose maximum design waste burning capacity is less than or equal to two hundred (200) pounds per hour, or a continuous or intermittent HMIWI whose maximum charge rate is less than or equal to two hundred (200) pounds per hour, or a batch HMIWI whose maximum charge rate is less than or equal to one thousand six hundred (1,600) pounds per day.

(GG) *Standard Metropolitan Statistical Area or SMSA* means any areas listed in Office of Management and Budget Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" date June 30, 1993 (incorporated by reference).

(HH) *Wet scrubber* means an add-on air pollution control device that utilizes an alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.]

(A) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in the Clean

Air Act and in 40 CFR Part 60, subparts A, B, and Ec.

(B) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10-6.020.

(3) General Provisions.

(A) Emission Limits.

1. [On or after the date on which the initial performance test is completed or September 1, 2000, whichever date comes first, no] No owner or operator of an [existing] HMIWI subject to this rule shall cause to be discharged into the atmosphere [from that HMIWI] any gases that contain stack emissions in excess of the limits presented in Table 1 of this subsection, except as provided for in paragraph (3)(A)2. of this rule.

[TABLE 1. EMISSION LIMITS FOR SMALL, MEDIUM, AND LARGE HMIWI

Pollutant	Units (7 percent oxygen, dry basis)	Emission limits		
		HMIWI size		
		Small	Medium	Large
Particulate matter	milligrams per dry standard cubic meter (grains per dry standard cubic foot)	115 (0.05)	69 (0.03)	34 (0.015)
Carbon monoxide	parts per million by volume	40	40	40
Dioxins/furans	nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)	125 (55) 2.3 (1.0)	125 (55) 2.3 (1.0)	125 (55) 2.3 (1.0)
Hydrogen chloride	parts per million by volume or percent reduction	100 or 93 %	100 or 93 %	100 or 93 %
Sulfur dioxide	parts per million by volume	55	55	55
Nitrogen oxides	parts per million by volume	250	250	250
Lead	milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	1.2 (0.52) or 70 %	1.2 (0.52) or 70 %	1.2 (0.52) or 70 %
Cadmium	milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	0.16 (0.07) or 65 %	0.16 (0.07) or 65 %	0.16 (0.07) or 65 %
Mercury	milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	0.55 (0.24) or 85 %	0.55 (0.24) or 85 %	0.55 (0.24) or 85 %]

Table 1—Emissions Limits for Small, Medium, and Large HMIWI

Pollutant	Units (7 percent oxygen, dry basis)	Emissions limits			Averaging time ¹	Method for demonstrating compliance ²
		HMIWI size				
		Small	Medium	Large		
Particulate matter	Milligrams per dry standard cubic meter (mg/dscm) (grains per dry standard cubic foot (gr/dscf))	66 (0.029)	46 (0.020) or 34 (.015) ³	25 (0.011)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of Appendix A-3 of part 60 or EPA Reference Method 26A or 29 of Appendix A-8 of part 60.
Carbon monoxide	Parts per million by volume (ppmv)	20	5.5	11	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of Appendix A-4 of part 60.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet (gr/10 ⁹ dscf) or ng/dscm TEQ (gr/10 ⁹ dscf)	16 (7.0) or 0.013 (0.0057)	0.85 (0.37) or 0.020 (0.0087)	9.3 (4.1) or 0.054 (0.024)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of Appendix A-7 of part 60.
Hydrogen chloride	ppmv	44 or 15 or 99% ³	7.7	6.6	3-run average (1-hour minimum sample time per run)	EPA Reference Method 26 or 26A of Appendix A-8 of part 60.
Sulfur dioxide	ppmv	4.2	4.2	9.0	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of Appendix A-4 of part 60.
Nitrogen oxides	ppmv	190	190	140	3-run average (1-hour minimum sample time per run)	EPA Reference Method 7 or 7E of Appendix A-4 of part 60.
Lead	mg/dscm (grains per thousand dry standard cubic feet (gr/10 ³ dscf))	0.31 (0.14)	0.018 (0.0079)	0.036 (0.016)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of part 60.
Cadmium	mg/dscm (gr/10 ³ dscf)	0.017 (0.0074)	0.013 (0.0057)	0.0092 (0.0040)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of part 60.
Mercury	mg/dscm (gr/10 ³ dscf)	0.014 (0.0061)	0.025 (0.011)	0.018 (0.0079)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of part 60.

¹ Except as allowed under section 60.56c(c) for HMIWI equipped with Continuous Emission Monitoring System (CEMS).² Does not include CEMS and approved alternative non-EPA test methods allowed under section 60.56c(b).³ HMIWI constructed after June 20, 1996, but no later than December 1, 2008, or for which modification is commenced after March 16, 1998, but no later than April 6, 2010.

2. *[Small rural]* No owner or operator of a small HMIWI constructed on or before June 20, 1996, which is located more than fifty (50) miles from the boundary of the nearest Standard Metropolitan Statistical Area and which burns less than two thousand (2,000) pounds per week of hospital waste and medical/infectious waste shall *[comply with the emission limits described in subparagraphs (3)(A)2.A. and B. of this rule]* cause to be discharged into the atmosphere any gases that contain stack emissions in excess of the limits presented in Table 2 of this paragraph. The two thousand (2,000) pounds per week limitation does not apply during performance tests.

[A. On or after the date on which the initial equipment inspection is completed or September 1, 2000, whichever date comes first, no owner or operator of an existing small rural HMIWI shall cause to be discharged into the atmosphere from that HMIWI any gases that contain stack emissions in excess of the limits presented in Table 2 of this subparagraphs.]

[TABLE 2. EMISSION LIMITS FOR SMALL RURAL HMIWI]

Pollutant	Units (7 percent oxygen, dry basis)	HMIWI Emission limits
Particulate matter	milligrams per dry standard cubic meter (grains per dry standard cubic foot)	197 (0.086)
Carbon monoxide	parts per million by volume	40
Dioxins/furans	nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)	800 (350) or 15 (6.6)
Hydrogen chloride	parts per million by volume	3100
Sulfur dioxide	parts per million by volume	55
Nitrogen oxides	parts per million by volume	250
Lead	milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	10 (4.4)
Cadmium	milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	4 (1.7)
Mercury	milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	7.5 (3.3)

**Table 2—Emissions Limits for Small HMIWI Which Meet
the Criteria Under Paragraph (3)(A)2. of this Rule**

Pollutant	Units (7 percent oxygen, dry basis)	HMIWI Emissions limits	Averaging time¹	Method for demonstrating compliance²
Particulate matter	mg/dscm (gr/dscf)	87 (0.038)	3-run average (1- hour minimum sample time per run)	EPA Reference Method 5 of Appendix A-3 of part 60 or EPA Reference Method 26A or 29 of Appendix A-8 of part 60.
Carbon monoxide	ppmv	20	3-run average (1- hour minimum sample time per run)	EPA Reference Method 10 or 10B of Appendix A-4 of part 60.
Dioxins/furans	ng/dscm total dioxins/furans (gr/10 ³ dscf) or ng/dscm TEQ (gr/10 ³ dscf)	240 (100) or 5.1 (2.2)	3-run average (4- hour minimum sample time per run)	EPA Reference Method 23 of Appendix A-7 of part 60.
Hydrogen chloride	ppmv	810	3-run average (1- hour minimum sample time per run)	EPA Reference Method 26 or 26A of Appendix A-8 of part 60.
Sulfur dioxide	ppmv	55	3-run average (1- hour minimum sample time per run)	EPA Reference Method 6 or 6C of Appendix A-4 of part 60.
Nitrogen oxides	ppmv	130	3-run average (1- hour minimum sample time per run)	EPA Reference Method 7 or 7E of Appendix A-4 of part 60.
Lead	mg/dscm (gr/10 ³ dscf)	0.50 (0.22)	3-run average (1- hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of part 60.
Cadmium	mg/dscm (gr/10 ³ dscf)	0.11 (0.048)	3-run average (1- hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of part 60.
Mercury	mg/dscm (gr/10 ³ dscf)	0.0051 (0.0022)	3-run average (1- hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of part 60.

¹ Except as allowed under section 60.56c(c) for HMIWI equipped with CEMS.

² Does not include CEMS and approved alternative non-EPA test methods allowed under section 60.56c(b).

[B. On or after the date on which the initial inspection is completed or September 1, 2000, whichever date comes first, no owner or operator of an existing small rural HMIWI shall cause to be discharged into the atmosphere from the stack of that HMIWI any gases that exhibit greater than ten percent (10%) opacity (six (6)-minute block average).]

3. [On or after the date on which the initial performance test is completed or September 1, 2000, whichever date comes first, no] No owner or operator of an [existing] HMIWI subject to this rule shall cause to be discharged into the atmosphere from the stack of that HMIWI any gases that exhibit greater than [ten] six percent ([10]/6%) opacity (six (6)-minute block average).

(B) Operator Training and Qualification Requirements.

1. No owner or operator of an [existing] HMIWI subject to this rule shall allow the HMIWI to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within one (1) hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct

supervisor of one (1) or more HMIWI operators.

2. Operator training and qualification shall be obtained by completing the requirements included in paragraphs (3)(B)3. through 7. of this rule.

3. Training shall be obtained by completing an HMIWI operator training course that includes, at a minimum, the following provisions:

A. Twenty-four (24) hours of training on the following subjects:

(I) Environmental concerns, including pathogen destruction and types of emissions;

(II) Basic combustion principles, including products of combustion;

(III) Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;

(IV) Combustion controls and monitoring;

(V) Operation of air pollution control equipment and factors affecting performance (if applicable);

(VI) Methods to monitor pollutants and equipment calibration procedures (where applicable);

(VII) Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;

(VIII) Actions to correct malfunctions or conditions that may lead to malfunction;

(IX) Bottom and fly ash characteristics and handling procedures;

(X) Applicable federal, state, and local regulations;

(XI) Work safety procedures;

(XII) Pre-startup inspections; and

(XIII) Record-keeping requirements;

B. An examination designed and administered by the instructor; and

C. Reference material distributed to the attendees covering the course topics.

4. Qualifications shall be obtained by—

A. Completion of a training course that satisfies the criteria under paragraph (3)(B)3. of this rule; and

B. Either six (6) months experience as an HMIWI operator, six (6) months experience as a direct supervisor of an HMIWI operator, or completion of at least two (2) burn cycles under the observation of two (2) qualified HMIWI operators.

5. Qualification is valid from the date on which the examination is passed or the completion of the required experience, whichever is later.

6. To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an annual review or refresher course of at least four (4) hours covering, at a minimum, the following:

A. Update of regulations;

B. Incinerator operation, including startup and shutdown procedures;

C. Inspection and maintenance;

D. Responses to malfunctions or conditions that may lead to malfunction; and

E. Discussion of operating problems encountered by attendees.

7. A lapsed qualification shall be renewed by one (1) of the following methods:

A. For a lapse of less than three (3) years, the HMIWI operator shall complete and pass a standard annual refresher course described in paragraph (3)(B)6. of this rule; or

B. For a lapse of three (3) years or more, the HMIWI operator shall complete and pass a training course with the minimum criteria described in paragraph (3)(B)3. of this rule.

8. The owner or operator of an HMIWI shall maintain documentation at the facility that address the following:

A. Summary of the applicable standards under this subpart;

B. Description of basic combustion theory applicable to an HMIWI;

C. Procedures for receiving, handling, and charging waste;

D. HMIWI startup, shutdown, and malfunction procedures;

E. Procedures for maintaining proper combustion air supply levels;

F. Procedures for operating the HMIWI and associated air pollution control systems within the standards established under this subpart;

G. Procedures for responding to periodic malfunction or conditions that may lead to malfunction;

H. Procedures for monitoring HMIWI emissions;

I. Reporting and record-keeping procedures; and

J. Procedures for handling ash.

9. The owner or operator of an HMIWI shall establish a program for reviewing the information listed in paragraph (3)(B)8. of this rule annually with each HMIWI operator.

A. The initial review of the information listed in paragraph (3)(B)8. of this rule shall be conducted *[within six (6) months after the effective date of this rule or] prior to assumption of responsibilities affecting HMIWI operation[, whichever date is later]*.

B. Subsequent reviews of the information listed in paragraph (3)(B)8. of this rule shall be conducted annually.

10. The information listed in paragraph (3)(B)8. of this rule shall be kept in a readily-accessible location for all HMIWI operators. This information, along with records of training, shall be available for inspection by the department or its delegated enforcement agent upon request.

(C) Waste Management Plan. The owner or operator of an HMIWI shall prepare a waste management plan. The waste management plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, elements such as **segregation and recycling of paper, cardboard, plastics, glass, [battery, or metal recycling; or] batteries, food waste, and metals (e.g., aluminum cans, metals-containing devices); segregation of non-recyclable wastes (e.g., polychlorinated biphenyl-containing waste, pharmaceutical waste, and mercury-containing waste, such as dental waste); and purchasing recycled or recyclable products.** A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, and any other environmental or energy impacts they might have. The *[American Hospital Association] development of the waste management plan shall consider the publication entitled *An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities* [(incorporated by reference) shall be considered in the development of the waste management plan.] (Catalog No. 057007), copyright year 1993, and hereby incorporated by reference in this rule, as published by the American Hospital Association Services, Inc., PO Box 92683, Chicago, IL 60675-2683. This rule does not incorporate any subsequent amendments or additions to this publication. The owner or operator of each commercial HMIWI company shall conduct training and education programs in waste segregation for each of the company's waste generator clients and ensure that each client prepares its own waste management plan that includes, but is not limited to, the provisions listed previously in this subsection.*

(D) Inspection Guidelines.

1. Each **HMIWI subject to the emission limits under paragraph (3)(A)1. of this rule and each small [rural] HMIWI subject to the emission limits under paragraph (3)(A)2. of this rule** shall undergo an initial equipment inspection *[by September 1, 2000.] that is at least as protective as the following:*

A. At a minimum, an inspection shall include the following:

(I) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation, **and clean pilot flame sensor, as necessary;**

(II) Ensure proper adjustment of primary and secondary chamber combustion air, **and adjust as necessary;**

(III) Inspect hinges and door latches **and lube as necessary;**

(IV) Inspect dampers, fans, and blowers for proper operation;

(V) Inspect HMIWI door and door gaskets for proper sealing;

(VI) Inspect motors for proper operation;

(VII) Inspect primary chamber refractory lining **and clean and repair/replace as necessary;**

(VIII) Inspect incinerator shell for corrosion and/or hot spots;

(IX) Inspect secondary/tertiary chamber and stack; **clean as necessary**;

(X) Inspect mechanical loader, including limit switches, for proper operation, if applicable;

(XI) Visually inspect waste bed (grates) **and repair/seal, as necessary**;

(XII) For the burn cycle that follows the inspection, document that the incinerator is operating properly **and make any necessary adjustments**;

(XIII) Inspect air pollution control devices for proper operation, if applicable;

(XIV) Inspect waste heat boiler systems to ensure proper operation, if applicable;

(XV) Inspect bypass stack components;

(XVI) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and

(XVII) Generally observe that the equipment is maintained in good operating condition¹; **and**

B. Within ten (10) operating days following an equipment inspection all necessary repairs shall be completed unless the owner or operator obtains written approval from the department or local air pollution control authority establishing a date whereby all necessary repairs of the designated facility shall be completed.

2. Each HMIWI subject to the emissions limits under paragraph (3)(A)1. of this rule and each small *[rural]* HMIWI subject to the emission limits under paragraph (3)(A)2. of this rule shall undergo an equipment inspection annually (no more than twelve (12) months following the previous annual equipment inspection), as outlined in *[sub]paragraph[s]* (3)(D)1. *[A. and B.]* of this rule.

3. Each HMIWI subject to the emissions limits under paragraph (3)(A)1. of this rule and each small HMIWI subject to the emissions limits under paragraph (3)(A)2. of this rule shall undergo an initial air pollution control device inspection, as applicable, that is at least as protective as the following:

A. At a minimum, an inspection shall include the following:

(I) Inspect air pollution control device(s) for proper operation, if applicable;

(II) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and

(III) Generally observe that the equipment is maintained in good operating condition; and

B. Within ten (10) operating days following an air pollution control device inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Missouri Department of Natural Resources' Air Pollution Control Program establishing a date whereby all necessary repairs of the designated facility shall be completed.

4. Each HMIWI subject to the emissions limits under paragraph (3)(A)1. of this rule and each small HMIWI subject to the emissions limits under paragraph (3)(A)2. of this rule shall undergo an air pollution control device inspection, as applicable, annually (no more than twelve (12) months following the previous annual air pollution control device inspection), as outlined in paragraph (3)(D)3. of this rule.

(E) Compliance and Performance Testing.

1. The emission limits under this rule apply at all times *[except during periods of startup, shutdown, or malfunction, provided that no hospital waste or medical/infectious waste is charged to the HMIWI during startup, shutdown, or malfunction]*.

2. Except as provided in paragraph (3)(E)/11./12. of this rule, the owner or operator of an HMIWI subject to this rule shall conduct an initial performance test to determine compliance with the emission limits using the procedures and test methods listed in subparagraphs (3)(E)2.A. through *[K./L.]* of this rule. The use of the bypass stack during a performance test shall invalidate the perfor-

mance test. **For small HMIWIs as defined in paragraph (3)(A)2. of this rule, the two-thousand (2,000)-pound-per-week limitation does not apply during performance tests.**

A. All performance tests shall consist of a minimum of three (3) test runs conducted under representative operating conditions.

B. The minimum sample time shall be one (1) hour per test run unless otherwise indicated.

C. **The sampling location and number of traverse points shall be determined using EPA Reference Method 1 of 40 CFR part 60, *[a/Appendix A *[(incorporated by reference)] shall be used to select the sampling location and number of traverse points.]*, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions.***

D. **Gas composition shall be analyzed and include a measurement of oxygen concentration using EPA Reference Method 3, 3A or *[3A/3B]* of 40 CFR part 60, *[a/Appendix A-2 *[(incorporated by reference)]*, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions and shall be used for gas composition analysis, including measurement of oxygen concentration. EPA Reference Method 3, 3A or *[3A/3B]* shall be used simultaneously with each of the other EPA reference methods. As an alternative to EPA Reference Method 3B, ASME PTC-19-10-1981-Part 10, American Society of Mechanical Engineers (ASME), PO Box 2900, 22 Law Drive, Fairfield, NJ, 07007-2900, may be used. This standard is incorporated by reference in this rule, as published by American Society for Testing and Materials (ASTM) International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. This rule does not incorporate any subsequent amendments or additions.***

E. The pollutant concentrations shall be adjusted to seven percent (7%) oxygen using the following equation:

$$C_{\text{adj}} = C_{\text{meas}} (20.9 - 7) / (20.9 - \% \text{O}_2)$$

where:

C_{adj} = pollutant concentration adjusted to 7 percent oxygen

C_{meas} = pollutant concentration measured on a dry basis

$(20.9 - 7)$ = 20.9 percent oxygen - 7 percent oxygen

(defined oxygen correction basis)

20.9 = oxygen concentration in air, percent

$\% \text{O}_2$ = oxygen concentration measured on a dry basis, percent

F. **Particulate Matter (PM) emissions shall be measured using EPA Reference Method 5 *[or 29 of 40 CFR part 60, appendix A *(incorporated by reference)* shall be used to measure the PM emissions.]* of 40 CFR part 60, Appendix A-3, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. An acceptable alternate method for measuring PM emissions is Method 26A or Method 29 of 40 CFR part 60, Appendix A-8, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, PM Continuous Emission Monitoring System (CEMS) may also be used as specified in subparagraph (3)(E)3.C. of this rule.**

G. **Stack opacity shall be measured using EPA Reference Method 9 of 40 CFR part 60, *[appendix A *(incorporated by reference)* shall be used to measure stack opacity.]* Appendix**

A-4 promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, demonstration of compliance with the PM standards using bag leak detection systems as specified in paragraph (3)(E)11. of this rule or PM CEMS as specified in subparagraph (3)(E)3.C. of this rule is considered demonstrative of compliance with the opacity requirements.

H. Carbon monoxide (CO) emissions shall be measured using EPA Reference Method 10 or 10B of 40 CFR part 60, *[appendix A (incorporated by reference) shall be used to measure the CO emissions.]* Appendix A-4 promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, CO CEMS may be used as specified in subparagraph (3)(E)3.C. of this rule.

I. Total dioxin/furan emissions shall be measured using EPA Reference Method 23 of 40 CFR part 60, *[appendix A (incorporated by reference) shall be used to measure total dioxin/furan emissions.]* Appendix A-7 promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, an owner or operator may elect to sample dioxins/furans by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions. Sampling shall be done using Method 23 of Appendix A-7, of 40 CFR part 60, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. The minimum sample time shall be four (4) hours per test run. If the affected facility has selected the toxic equivalency standards for dioxin/furans the following procedures shall be used to determine compliance:

(I) Measure the concentration of each dioxin/furan tetra-through octa-congener emitted using EPA Reference Method 23 of 40 CFR part 60, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions;

(II) For each dioxin/furan congener measured in accordance with part (3)(E)2.I.(I) of this rule, multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 3 of this part; and

[TABLE 3. TOXIC EQUIVALENCY FACTORS]

Table 3—Toxic Equivalency Factors

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	0.5
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
octachlorinated dibenzo-p-dioxin	0.001
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.5
1,2,3,7,8-pentachlorinated dibenzofuran	0.05
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
octachlorinated dibenzofuran	0.001

(III) Sum the products calculated in accordance with part (3)(E)2.I.(II) of this rule to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

J. Hydrogen chloride (HCl) shall be measured using EPA Reference Method 26 or 26A of 40 CFR part 60, [appendix A (incorporated by reference)] shall be used to measure HCl emissions. If the affected facility has selected the percentage reduction standards for HCl under section (3) of this rule, the percentage reduction in HCl emissions ($\%R_{HCl}$) is computed using the following formula:

$$(\%R_{HCl}) = \frac{(E_i - E_o)}{E_i} \times 100$$

where:

$\%R_{HCl}$ = percentage reduction of HCl emission achieved
 E_i = HCl emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis)

E_o = HCl emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis)
 Appendix A-8 promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S.

Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, HCl CEMS may be used as specified in subparagraph (3)(E)3.C. of this rule.

K. Lead (Pb), cadmium (Cd), and mercury (Hg) emissions shall be measured using EPA Reference Method 29 [shall be used to measure Lead (Pb), Cadmium (Cd), and Hg emissions. If the affected facility has selected the percentage reduction standards for metals under section (3) of this rule, the percentage reduction in emissions ($\%R_{metal}$) is computed using the following formula:

$$(\%R_{metal}) = \frac{(E_i - E_o)}{E_i} \times 100$$

where:

$\%R_{metal}$ = percentage reduction of metal emission (Pb, Cd, or Hg) achieved

E_i = metal emission concentration (Pb, Cd, or Hg) measured at the control device inlet, corrected to 7 percent oxygen (dry basis)

E_o = metal emission concentration (Pb, Cd, or Hg) measured at the control device outlet, corrected to 7 percent

oxygen (dry basis)] of 40 CFR part 60, Appendix A-8, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, Hg emissions may be measured using ASTM D6784-02. This standard is incorporated by reference in this rule, as published by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. This rule does not incorporate any subsequent amendments or additions. As an alternative for Pb, Cd, and Hg, multi-metals CEMS or Hg CEMS, may be used as specified in subparagraph (3)(E)3.C. of this rule. As an alternative, an owner or operator may elect to sample Hg by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring Hg emissions.

L. Compliance for fugitive ash emissions shall be determined using EPA Reference Method 22 of 40 CFR part 60, Appendix A-7, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. The minimum observation time shall be a series of three (3) one (1)-hour observations.

3. Following the date on which the initial performance test is completed *[or September 1, 2000, whichever date comes first]*, the owner or operator of an affected facility shall—

A. Determine compliance with the opacity limit by conducting an annual performance test (no more than twelve (12) months following the previous performance test) using the applicable procedures and test methods listed in paragraph (3)(E)2. of this rule;

B. Determine compliance with the PM, CO, and HCl emission limits by conducting an annual performance test (no more than twelve (12) months following the previous performance test) using the applicable procedures and test methods listed in paragraph (3)(E)2. of this rule. If all three (3) performance tests over a three (3)-year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent two (2) years. At a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than thirty-six (36) months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional two (2) years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a three (3)-year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test; and

C. Facilities using a Continuous Emission Monitoring System (CEMS) to demonstrate compliance with any of the emission limits under section (3) of this rule shall[—]

[(I) Determine] determine compliance with the appropriate emission limit(s) using a twelve (12)-hour rolling average, calculated each hour as the average of the previous twelve (12) operating hours. *[not including startup, shutdown, or malfunction]; and]*

[(III) Operate all CEMS in accordance with the applicable procedures under appendices B and F of 40 CFR part 60 (incorporated by reference).]

4. The owner or operator of an affected facility equipped with a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and wet scrubber shall—

A. Establish the appropriate maximum and minimum operating parameters, indicated in Table 4 of this subparagraph for each control system, as site-specific operating parameters during the ini-

tial performance test to determine compliance with the emission limits; and

[TABLE 4. OPERATING PARAMETERS TO BE MONITORED AND MINIMUM MEASUREMENT AND RECORDING FREQUENCIES]

Table 4—Operating Parameters to be Monitored and Minimum Measurement and Recording Frequencies

Operating parameters to be monitored	Minimum frequency		Control system		
	Data measurement	Data recording	Dry scrubber followed by fabric filter	Wet scrubber	Dry scrubber followed by fabric filter and wet scrubber
MAXIMUM OPERATING PARAMETERS					
Maximum charge rate	Continuous	1 per hour	✓	✓	✓
Maximum fabric filter inlet temperature	Continuous	1 per minute	✓		✓
Maximum flue gas temperature	Continuous	1 per minute		✓	✓
MINIMUM OPERATING PARAMETERS					
Minimum secondary chamber temperature	continuous	1 per minute	✓	✓	✓
Minimum dioxin/furan sorbent flow rate	hourly	1 per hour	✓		✓
Minimum hydrogen chloride (HCl) sorbent flow rate	hourly	1 per hour	✓		✓
Minimum mercury (Hg) sorbent flow rate	hourly	1 per hour	✓		✓
Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to wet scrubber	continuous	1 per minute		✓	✓
Minimum scrubber liquor flow rate	continuous	1 per minute		✓	✓
Minimum scrubber liquor pH	continuous	1 per minute		✓	✓

B. Following the date on which the initial performance test is completed *[or September 1, 2000, whichever date comes first]*, ensure that the affected facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Table 4 and measured as three (3)-hour rolling averages (calculated each hour as the average of the previous three (3) operating hours) at all times except during periods of startup, shutdown, and malfunction. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameter(s).

5. Except as provided in paragraph (3)(E)8. of this rule, for affected facilities equipped with a dry scrubber followed by a fabric filter—

A. Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the CO emission limit;

B. Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit;

C. Operation of the affected facility above the maximum charge rate and below the minimum HCl sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit;

D. Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit; or

E. Use of the bypass stack *[(except during startup, shutdown, or malfunction)]* shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

6. Except as provided in paragraph (3)(E)8. of this rule, for affected facilities equipped with a wet scrubber—

A. Operation of the affected facility above the maximum charge rate and below the minimum pressure drop across the wet scrubber or below the minimum horsepower or amperage to the system (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the PM emission limit;

B. Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the CO emission limit;

C. Operation of the affected facility above the maximum charge rate, below the minimum secondary temperature, and below the minimum scrubber liquor flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit;

D. Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit;

E. Operation of the affected facility above the maximum flue gas temperature and above the maximum charge rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit; or

F. Use of the bypass stack *[(except during startup, shutdown, or malfunction)]* shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

7. Except as provided in paragraph (3)(E)8. of this rule, for affected facilities equipped with a dry scrubber followed by a fabric filter and a wet scrubber—

A. Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously

shall constitute a violation of the CO emission limit;

B. Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit;

C. Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit;

D. Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit; or

E. Use of the bypass stack *[(except during startup, shutdown, or malfunction)]* shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

8. The owner or operator of an affected facility may conduct a repeat performance test within thirty (30) days of violation of applicable operating parameter(s) to demonstrate that the affected facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted using the identical operating parameters that indicated a violation under paragraphs (3)(E)5., 6., or 7. of this rule.

9. The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber, **or selective noncatalytic reduction technology**, to comply with the emission limits under section (3) of this rule shall petition the administrator for other site-specific operating parameters to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the administrator.

10. The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The department may request a repeat performance test at any time.

11. The owner or operator of an affected facility that uses an air pollution control device that includes a fabric filter and is not demonstrating compliance using PM CEMS, determines compliance with the PM emissions limit using a bag leak detection system, and meets the requirements in subparagraphs (3)(E)11.A. through L. of this rule for each bag leak detection system.

A. Each triboelectric bag leak detection system may be installed, calibrated, operated, and maintained according to the “Fabric Filter Bag Leak Detection Guidance” (EPA-454/R-98-015, September 1997). This document is available from the U.S. Environmental Protection Agency (U.S. EPA), Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Measurement Policy Group (D-243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emissions Measurement Center Continuous Emissions Monitoring. Other types of bag leak detection systems shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer’s written specifications and recommendations.

B. The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of ten (10) milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

C. The bag leak detection system sensor shall provide an output of relative PM loadings.

D. The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.

E. The bag leak detection system shall be equipped with

an audible alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel.

F. For positive pressure fabric filter systems, a bag leak detector shall be installed in each baghouse compartment or cell.

G. For negative pressure or induced air fabric filters, the bag leak detector shall be installed downstream of the fabric filter.

H. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

I. The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the "Fabric Filter Bag Leak Detection Guidance."

J. Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted. In no case may the sensitivity be increased by more than one hundred percent (100%) or decreased more than fifty percent (50%) over a three-hundred-sixty-five (365)-day period unless such adjustment follows a complete fabric filter inspection that demonstrates that the fabric filter is in good operating condition. Each adjustment shall be recorded.

K. Record the results of each inspection, calibration, and validation check.

L. Initiate corrective action within one (1) hour of a bag leak detection system alarm; operate and maintain the fabric filter such that the alarm is not engaged for more than five percent (5%) of the total operating time in a six (6)-month block reporting period. If inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of one (1) hour. If it takes longer than one (1) hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

[11./12. Small *[rural]* HMIWI subject to the emissions limits under paragraph (3)(A)2. of this rule **that is not equipped with an air pollution control device** shall meet the following compliance and performance testing requirements:

[A. *Conduct the performance testing requirements in paragraph (3)(E)1., subparagraphs (3)(E)2.A. through I., (3)(E)2.K. (Hg only), and (3)(E)3.A. of this rule. The two thousand (2,000) pound per week limitation does not apply during performance tests;*

[B./A. Establish maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits;

[C./B. Following the date on which the initial performance test is completed *[or September 1, 2000, whichever date comes first]*, ensure that the designated facility does not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as three (3)-hour rolling averages (calculated as the average of the previous three (3) operating hours) at all times *[except during periods of startup, shutdown and malfunction]*. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameter(s);

[D./C. Except as provided in subparagraph (3)(E)/11.E/12.D. of this rule, operation of the designated facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits; and

[E./D. The owner or operator of a designated facility may conduct a repeat performance test within thirty (30) days of the vio-

lation of applicable operating parameter(s) to demonstrate that the designated facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph must be conducted using the identical operating parameters that indicated a violation under subparagraph (3)(E)/11.D./12.C. of this rule.

13. The owner or operator of a designated facility subject to this rule may use the results of previous emissions tests to demonstrate compliance with the emissions limits, provided that the following conditions are met:

A. The designated facility's previous emissions tests must have been conducted using the applicable procedures and test methods listed in subparagraphs (3)(E)2.A.-L. of this rule. Previous emissions test results obtained using EPA-accepted voluntary consensus standards are also acceptable;

B. The HMIWI at the designated facility shall currently be operated in a manner (e.g., with charge rate, secondary chamber temperature, etc.) that would be expected to result in the same or lower emissions than observed during the previous emissions test(s), and the HMIWI may not have been modified such that emissions would be expected to exceed (notwithstanding normal test-to-test variability) the results from previous emissions test(s); and

C. The previous emissions test(s) must have been conducted in 1996 or later.

(F) Monitoring Requirements.

1. Except as provided for under paragraph (3)(F)5. of this rule, the owner or operator of an HMIWI **subject to this rule** shall install, calibrate (to manufacturers' specification), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 4 *[of subparagraph (3)(E)4.A.]* of this rule **(unless CEMS are used as a substitute for certain parameters as specified)** such that these devices (or methods) measure and record values for these operating parameters at the frequency indicated in Table 4 of *[subparagraph (3)(E)4.A.] this rule* at all times *[except during periods of start-up and shutdown]*.

2. The owner or operator of an HMIWI shall install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

3. The owner or operator of an HMIWI using something other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under section (3) of this rule shall install, calibrate (to manufacturers' specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed pursuant to paragraph (3)(E)9. of this rule.

4. The owner or operator of an HMIWI shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for seventy-five percent (75%) of the operating hours per day for ninety percent (90%) of the operating days per calendar quarter that the HMIWI is combusting hospital waste and/or medical/infectious waste.

5. Small *[rural]* HMIWI subject to the emission limits under paragraph (3)(A)2. of this rule **not equipped with an air pollution control device** shall meet the following monitoring requirements:

A. Install, calibrate (to manufacturers' specification), maintain, and operate a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum, once every minute throughout operation;

B. Install, calibrate (to manufacturers' specification), maintain, and operate a device that automatically measures and records the date, time, and weight of each charge fed into the HMIWI; and

C. The owner or operator of a designated facility shall obtain monitoring data at all times during HMIWI operation except during

periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for seventy-five percent (75%) of the operating hours per day for ninety percent (90%) of the operating days per calendar quarter that the designated facility is combusting hospital waste and/or medical/infectious waste.

(4) Reporting and Record Keeping.

(A) *[Except as provided for under subsection (4)(F) of this rule, the]* The owner or operator of an HMIWI **subject to this rule** shall maintain the following information (as applicable) for a period of at least five (5) years:

1. Calendar date of each record;
2. Records of the following data:

A. Concentrations of any pollutant listed in section (3) of this rule or measurements of opacity as determined by the continuous emission monitoring system (if applicable);

B. Results of fugitive emissions (by EPA Reference Method 22) tests, if applicable;

[B./C.] HMIWI charge dates, times, and weights and hourly charge rates;

[C./D.] Fabric filter inlet temperatures during each minute of operation, as applicable;

[D./E.] Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable;

[E./F.] Amount and type of Hg sorbent used during each hour of operation, as applicable;

[F./G.] Amount and type of HCl sorbent used during each hour of operation, as applicable;

H. Amount and type of Nitrogen Oxides (NO_x) reagent used during each hour of operation, as applicable;

[G./I.] Secondary chamber temperatures recorded during each minute of operation;

[H./J.] Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable;

[I./K.] Horsepower or amperage to the wet scrubber during each minute of operation, as applicable;

[J./L.] Pressure drop across the wet scrubber system during each minute of operation, as applicable;

[K./M.] Temperature at the outlet from the wet scrubber during each minute of operation, as applicable;

[L./N.] pH of the scrubber liquor at the inlet to the wet scrubber during each minute of operation, as applicable;

[M./O.] Records indicating use of the bypass stack, including dates, times, and durations; *[and]*

[N./P.] For HMIWI complying with paragraph (3)(E)9. and paragraph (3)(F)3. of this rule, the owner or operator shall maintain all operating parameter data collected; **and**

Q. For affected facilities as defined in this rule, records of the annual equipment inspections, annual air pollution control device inspections, any required maintenance, and any repairs not completed within ten (10) days of an inspection or the time frame established by the director;

3. Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (4)(A)2. of this rule have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken;

4. Identification of calendar days, times, and durations of malfunctions, a description of the malfunction, and the corrective action taken;

5. Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (4)(A)2. of this rule exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken;

6. The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating parameters, as applicable, **and a description, including sample calculations, of how the operating**

parameters were established or re-established, if applicable;

7. Records showing the names of HMIWI operators who have completed review of the information in paragraph (3)(B)8. of this rule as required by paragraph (3)(B)9. of this rule, including the date of the initial review and all subsequent annual reviews;

8. Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;

9. Records showing the names of the HMIWI operators who have met the criteria for qualification under subsection (3)(B) of this rule and the dates of their qualification; and

10. Records of calibration of any monitoring devices as required under paragraphs (3)(F)1., 2., and 3. through 5. of this rule.

(B) The owner or operator of an HMIWI shall submit to the department the information specified in paragraphs (4)(B)1. through 3. of this rule no later than sixty (60) days following the initial performance test. All reports shall be signed by the facilities manager.

1. The initial performance test data as recorded under subparagraphs (3)(E)2.A. through *[K./L.]* of this rule, as applicable.

2. The values for the site-specific operating parameters established pursuant to paragraph *[s/]* (3)(E)4. or 9. of this rule, as applicable, **and a description, including sample calculations, of how the operating parameters were established during the initial performance test.**

3. The waste management plan as specified in subsection (3)(C) of this rule.

(C) An annual report shall be submitted to the department one (1) year following the submission of the information in subsection (4)(B) of this rule and subsequent reports shall be submitted no more than twelve (12) months following the previous report (once the unit is subject to permitting requirements under Title V of the Clean Air Act, the owner or operator of an affected facility must submit these reports semiannually). The annual report shall include the information specified in paragraphs (4)(C)1. through 8. of this rule. All reports shall be signed by the facilities manager.

1. The values for the site-specific operating parameters established pursuant to paragraph (3)(E)4., 8., or 9. of this rule, as applicable.

2. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported, pursuant to paragraph (3)(E)4., 8., or 9. of this rule, as applicable.

3. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable for each operating parameter recorded pursuant to paragraph (3)(E)4., 8., or 9. of this rule for the calendar year preceding the year being reported, in order to provide the department with a summary of the performance of the affected facility over a two (2)-year period.

4. Any information recorded under paragraphs (4)(A)3. through 5. of this rule for the calendar year being reported.

5. Any information recorded under paragraphs (4)(A)3. through 5. of this rule for the calendar year preceding the year being reported, in order to provide the department with a summary of the performance of the affected facility over a two (2)-year period.

6. If a performance test was conducted during the reporting period, the results of that test.

7. If no exceedances or malfunctions were reported under paragraphs (4)(A)3. through 5. of this rule for the calendar year being reported, a statement that no exceedances occurred during the reporting period.

8. Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.

(F) The owner or operator of an *[small rural]* HMIWI *[subject to the emission limits under paragraph (3)(A)2. of this rule shall—*

1. *Maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within ten (10) days of an inspection or the time frame established by the inspector; and*

2. *Submit* shall submit an annual report to the department containing information recorded under subparagraph [(4)(F)1.](4)(A)2.Q. of this rule no later than sixty (60) days following the year in which data were collected. Subsequent reports shall be sent no later than twelve (12) calendar months following the previous report (once the unit is subject to permitting requirements under Title V of the Clean Air Act, the owner or operator must submit these reports semiannually). The report shall be signed by the facilities manager.

(5) Test Methods. Test methods can be found in subparagraphs (3)(E)2.A. through [(3)(E)2.K.]. of this rule.

AUTHORITY: section 643.050, RSMo [Supp. 1999] 2000. Original rule filed Dec. 1, 1998, effective July 30, 1999. Amended: Filed Oct. 13, 2000, effective July 30, 2001. Amended: Filed Nov. 26, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed amendment will begin at 9:00 a.m., February 3, 2011. The public hearing will be held at the Doubletree Hotel and Conference Center, Ballrooms C, D, and E, 16625 Swingley Ridge Road, Chesterfield, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., February 10, 2011. Written comments shall be sent to Chief, Air Quality Planning Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

Title 10—DEPARTMENT OF NATURAL RESOURCES

Division 23—Division of Geology and Land Survey

Chapter 4—Monitoring Well Construction Code

PROPOSED AMENDMENT

10 CSR 23-4.010 Definitions. The division is deleting sections (6) and (9), adding sections (1), (2), (3), (5), (6), (7), (9), (11), and (16), and amending and renumbering the remaining sections.

PURPOSE: This amendment more clearly defines words used in Chapter 4 concerning monitoring wells; otherwise, the definitions contained in 10 CSR 23-1.010 apply.

(1) Concrete means a slurry mixture with a ratio of ninety-four pounds (94 lbs.) of cement, equal volumes of dry sand and gravel, and five to six (5–6) gallons of water from a known safe and uncontaminated source. The ratio of sand and gravel to cement may not exceed three parts to one (3:1).

(2) Cone penetrometer means a device used to gather information about soil conditions and/or groundwater. The device penetrates the ground surface by direct-push as a general method of installation.

(3) Direct-push well means a monitoring well that is ten feet (10') or greater in depth that is installed by pushing or hammering drive rods as opposed to drilling or augering. Direct-push wells tend to be smaller in diameter than their conventionally drilled counterparts leading to differences in annular space, casing, and

sealing dimensions. Various screening or data collection devices, such as a cone penetrometer or lysimeter, may be used in a direct-push well.

[(1)](4) Extraction well [mean any] is a monitoring well [more than] that is ten feet (10') or greater in depth utilized in the remediation of a site. These include, but are not limited to, the following: wells serving pump and treat systems, **including multi-well systems**, wells to capture a contaminant plume or alter the direction or magnitude of groundwater movement, [leachate recovery wells that are not a part of the original landfill construction] and other associated wells. Passive and active methane wells **that terminate within landfill[s] trash** are exempted from these rules[,] but are regulated [under the Solid Waste Law.] by the Missouri Solid Waste Management Program. Passive and active methane and leachate extraction wells that are located outside of trash or extend through trash into the underlying bedrock formations are regulated under these rules.

(5) Gas-migration well is a monitoring well that is ten feet (10') or greater in depth and designed for the detection and analysis of a gas or vapor that is migrating away from a contaminant source, including but not limited to soil vapor probes, soil vapor implants, and landfill gas-monitoring wells.

(6) An injection well is a monitoring well that is ten feet (10') or greater in depth into which fluid or other media is injected, in pump and treat systems, to clean, treat, or prevent contamination of groundwater. All other types of injection wells are defined by the Environmental Protection Agency (EPA); these wells may be regulated by other department programs or state agencies.

(7) Lysimeter is a device used to measure the percolation of water through soils and/or to determine what soluble constituents are removed in the drainage.

[(2)](8) Monitoring well means a well that is ten feet (10') or greater in depth which is constructed during characterization and/or remediation of a site impacted by one (1) or more contaminant to obtain site-specific water quality, contaminant movement, or geologic or hydrologic data [from proposed or existing waste disposal, waste processing, waste storage, hazardous materials release or other sites which may impact groundwater quality. This includes extraction wells used in the remediation of the site, piezometers for the collection of geologic and hydrologic data, observation wells and field screening technologies such as soil gas monitoring or push-in well screen temporary wells greater than ten feet (10') in depth but excludes constructed in the tank pit used as a part of an underground storage tank leak detection system and piezometers used to monitor the geotechnical performance of dams Monitoring wells less than ten feet (10') in depth are exempt from reporting rules but must be plugged (see 10 CSR 23-4.080(5)).]. This includes but is not limited to:

- (A) Extraction wells;
- (B) Injection wells;
- (C) Soil borings;
- (D) Direct-push wells;
- (E) Piezometers;
- (F) Observation wells;
- (G) Gas-migration wells; and
- (H) Subsurface penetrations associated with field screening devices such as cone penetrometers and lysimeters.

(9) Nested well is a cluster of two (2) or more single riser limited interval monitoring wells installed at different depths in a single borehole with a grout seal separating each screened interval.

[(3)](10) Nominal diameter means the term used to describe the standard sizes for casing. Depending on the wall thickness, the inside diameter of the casing may be less than or greater than the number indicated. For example, two-inch (2") nominal Schedule 40 polyvinyl chloride (PVC) casing has a standard outside diameter of 2.375 inches, and an inside diameter of 2.067 inches; two-inch (2") nominal Schedule 80 PVC casing has the same outside diameter, but has an inside diameter of only 1.939 inches.

(11) Observation well means any monitoring well, in which the screen intersects a water table, for the specific purpose of determining either the elevation of the water table or the physical, chemical, biological, or radiological properties of groundwater. Observation wells constructed in the tank pit used as a part of an underground storage tank leak detection system are excluded from the requirements of this rule.

[(4)](12) Open-hole completion means a monitoring well cased through all overburden material and upper water producing zones, completed in bedrock, with no well screen or filter pack.

[(5)](13) Piezometer means a [groundwater monitoring well, screened or opened to a saturated interval, installed for the specific purpose of determining either the elevation of the potentiometric surface or the physical, chemical, biological or radiological properties, or both, of groundwater at some point within the saturated zone] monitoring well that is ten feet (10') or greater in depth and used to measure the pressure of a fluid or the degree of compressibility of a substance when subjected to pressure or used to collect water samples for laboratory analysis. It is most commonly a small diameter well used to measure the hydraulic head of groundwater in subsurface water bearing zones. Piezometers used to monitor the geotechnical performance of dams are excluded from the requirements of this rule.

[(6) Potentiometric surface or piezometric surface means an imaginary surface representing the total head of groundwater and is the level to which water will rise in a well.]

[(7)](14) [Protective c]Casing means [the casing set] an industry-standard-sized pipe for the purpose of sealing off a specific zone of geology or contaminants, from a point below the frost line and extends at least one and one-half feet (1 1/2') above the finished grade. The bottom of the casing must be at least three feet (3') below ground surface. [This casing is set to protect the monitoring well from damage.] This is not to be used as a surface completion.

[(8)](15) Riser pipe means the [casing] pipe extending from the well screen [to or above the ground level] into the surface completion.

[(9) Water table observation well means any monitoring well, in which the screen or open borehole intersects a water table, which is installed for the specific purpose of determining either the elevation of the water table or the physical, chemical, biological or radiological properties, or both, of groundwater at the water table.]

(16) Shallow monitoring means obtaining groundwater samples from a monitoring well within five feet (5') of ground surface.

[(10)](17) Temporary [monitoring] well means a monitoring well [or hole] used for field screening purposes [such as soil gas monitoring, push-in typeholes auger holes, etc. that are greater than ten feet (10') in depth and are plugged within thirty (30) days of completion. These wells may or may not have temporary pipes installed for various purposes] that is ten feet

(10') or greater in depth and is plugged within thirty (30) days of completion.

[(11) Concrete means a slurry mixture with a ratio of ninety-four pounds (94 lbs.) of cement, equal volumes of dry sand and gravel and five to six (5–6) gallons of water from a known safe and uncontaminated source. The ratio of sand and gravel to cement may not exceed three parts to one (3:1).]

AUTHORITY: sections 256.603, 256.606, and 256.626, RSMo [(1994)] 2000. Emergency rule filed Nov. 16, 1993, effective Dec. 11, 1993, expired April 9, 1994. Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed July 13, 1994, effective Jan. 29, 1995. Amended: Filed Nov. 1, 1995, effective June 30, 1996. Amended: Filed Nov. 18, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Department of Natural Resources, Geological Survey Program, Sheri Fry, PO Box 250, Rolla, MO 65402 or by email at sheri.fry@dnr.mo.gov. To be considered, comments must be received by February 7, 2011. A public hearing is scheduled for 10:00 a.m. on February 3, 2011, at the department's Division of Geology and Land Survey's Annex Bldg, III Fairgrounds Road, Rolla, Missouri.

Title 10—DEPARTMENT OF NATURAL RESOURCES Division 23—Division of Geology and Land Survey Chapter 4—Monitoring Well Construction Code

PROPOSED AMENDMENT

10 CSR 23-4.020 Certification and Registration for Monitoring Wells. The division is amending sections (1) and (2), deleting section (3), adding section (4), and renumbering the remaining section.

PURPOSE: This amendment clarifies the certification and registration process.

(1) A certification report form, supplied by the division, shall be used to report new monitoring well construction, **except that no certification report form is required for a temporary well.** The certification report form shall be completed and submitted to the division by the permittee within sixty (60) days after the completion of any well. The certification report form shall be accompanied by the certification fee (see 10 CSR 23-2 for applicable fees). [The permittee shall furnish the well owner one (1) copy, the division one (1) copy and retain one (1) copy in the permittee's files.] **The certification report form shall contain all required information specified thereon.**

(2) The certification process involves the review of the certification report form to be sure that the well meets [all] **minimum** construction requirements [necessary for the specific area where the well has been drilled]. Upon successful completion of review of the certification report form, a certification number will be assigned **by the division** and sent to the well owner. The issuance of the certification number indicates that the well has met the minimum standards set out in these rules. [The minimum construction standards were written to protect Missouri's groundwater and to

help ensure that construction of the wells does not constitute a threat to this resource.]

[(3) The registration process involves the documentation of certain types of activities according to the requirements and reported on forms supplied by the division.]

[(4)](3) A registration report form, supplied by the division, shall be used to report the plugging of a monitoring well/s and/ or the major repair/s and/, or alteration/s made to/ of a monitoring well/s/ and must be submitted to the division by the permittee within sixty (60) days after completion of such operations. The registration report form shall be accompanied by the registration fee. Temporary monitoring wells are required to be plugged within thirty (30) days after initial completion. [Only a registration report form is required to document plugging of temporary monitoring wells. The registration report form shall be accompanied by the registration fee. The permittee shall furnish the well owner one (1) copy, the division one (1) copy and retain one (1) copy in the permittee's files.] When temporary wells are installed, usually multiple wells per monitoring site are used. All temporary wells per monitoring site may be reported on one (1) registration report form if the wells are plugged the same way. Only one (1) registration fee is required per site. The submittal of this type of registration report form and fee is required within one hundred eighty (180) days of completion of the plugging of temporary wells. The registration report form shall contain all required information specified thereon.

(4) Certification and registration report forms shall include the geographic location of the well. The geographic location shall have a format in degrees, minutes, and seconds for latitude and longitude relative to the North American Datum 1983 (NAD1983) geodetic datum. Location accuracy shall be at least one (1) place after the second's decimal point; i.e., this format: latitude 38° 59' 59.9"N, longitude 94° 01' 01.0"W.

AUTHORITY: sections 256.606, 256.614, and 256.626, RSMo [(1994)] 2000. Emergency rule filed Nov. 16, 1993, effective Dec. 11, 1993, expired April 9, 1994. Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed Nov. 1, 1995, effective June 30, 1996. Amended: Filed Nov. 18, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Department of Natural Resources, Geological Survey Program, Sheri Fry, PO Box 250, Rolla, MO 65402 or by email at sheri.fry@dnr.mo.gov. To be considered, comments must be received by February 7, 2011. A public hearing is scheduled for 10:00 a.m. on February 3, 2011, at the department's Division of Geology and Land Survey's Annex Bldg, III Fairgrounds Road, Rolla, Missouri.

Title 10—DEPARTMENT OF NATURAL RESOURCES Division 23—Division of Geology and Land Survey Chapter 4—Monitoring Well Construction Code

PROPOSED AMENDMENT

10 CSR 23-4.030 Location of Wells. The division is deleting subsection (1)(A), renumbering subsection (1)(B), and renumbering and

amending the remaining subsections.

PURPOSE: This amendment revises the criteria for the locations where monitoring wells should be placed.

(1) A monitoring well shall be—

[(A) Located so that the well and its surrounding area can be kept in a sanitary condition and provide ready access for maintenance and repairs;]

[(B)](A) Located, if possible, so proper drainage in the vicinity of the well shall be provided to prevent the accumulation and pooling of surface water within ten feet (10') of the well;

[(C)](B) If at all possible, located in areas that do not flood; and [If no reasonable alternative site exists, special construction criteria will be determined on a case-by-case basis by the division; and

(D) Located where possible farther than fifteen feet (15') from a cavity used for underground utility lines or an overhead electric distribution line or not twenty-five feet (25') from an electric transmission line which is in excess of fifty (50) kilovolt (kV), except for the underground electrical service line in the vicinity of an existing well or known proposed well. If it is necessary to locate wells under electric lines safety precautions should be taken. In]

(C) When located in areas of traffic, [the wellhead] an above-ground surface completion must either be protected by [pylons] protective posts to prevent damage[, or completed as a surface flush mount as described in 10 CSR 23-4.060[(12)](B)](10)(B).

AUTHORITY: sections 256.606 and 256.626, RSMo [(Cum. Supp. 1991)] 2000. Emergency rule filed Nov. 16, 1993, effective Dec. 11, 1993, expired April 9, 1994. Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed Nov. 18, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Department of Natural Resources, Geological Survey Program, Sheri Fry, PO Box 250, Rolla, MO 65402 or by email at sheri.fry@dnr.mo.gov. To be considered, comments must be received by February 7, 2011. A public hearing is scheduled for 10:00 a.m. on February 3, 2011, at the department's Division of Geology and Land Survey's Annex Bldg, III Fairgrounds Road, Rolla, Missouri.

Title 10—DEPARTMENT OF NATURAL RESOURCES Division 23—Division of Geology and Land Survey Chapter 4—Monitoring Well Construction Code

PROPOSED RESCISSION

10 CSR 23-4.040 Drilling Methods for Monitoring Wells. This rule ensured the method of drilling utilized allowed a representative sample to be taken of the zone to be monitored and ensured the appropriate zone was being monitored.

PURPOSE: This rule is being rescinded as the rule was written solely for educational purposes and is therefore not enforceable by law.

AUTHORITY: sections 256.606 and 256.626, RSMo Supp. 1991. Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed July 13, 1994, effective Jan. 29, 1995. Rescinded: Filed Nov. 18, 2010.

PUBLIC COST: This proposed rescission will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed rescission will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rescission with the Department of Natural Resources, Geological Survey Program, Sheri Fry, PO Box 250, Rolla, MO 65402 or by email at sheri.fry@dnr.mo.gov. To be considered, comments must be received by February 7, 2011. A public hearing is scheduled for 10:00 a.m. on February 3, 2011, at the department's Division of Geology and Land Survey's Annex Bldg, III Fairgrounds Road, Rolla, Missouri.

**Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 23—Division of Geology and Land Survey
Chapter 4—Monitoring Well Construction Code**

PROPOSED AMENDMENT

10 CSR 23-4.050 General Protection of Groundwater Quality and Resources. The division is amending sections (1), (2), and (3).

PURPOSE: This amendment revises the rule preventing the use of monitoring wells for any purpose other than the purpose for which they were designed and allowing certain modifications to the application of these rules.

(1) Monitoring wells shall not be converted to any other type of well unless approved in advance by the [department] division.

(2) When strict application of these rules presents practical difficulties or unusual hardships, the division, [in a specific instance] on a case-by-case basis, may modify the application of these rules consistent with the general purpose and intent of these rules and the law. The division may then impose certain conditions as are necessary, in the opinion of the division, to protect the groundwater of the state and health, safety, and general well-being of persons using, or potential users, of the groundwater (see 10 CSR 23-1.040 Modification by the Division for procedures concerning variances).

(3) It is the obligation and responsibility of the monitoring well installation contractor to ensure that the monitoring well is constructed according to these rules and that the annular space, if one exists, is sealed. [This obligation and responsibility with regard to the annular seal ends three (3) years after the date of certification, unless it can be shown that the well seal has been damaged by other persons.] The monitoring well must be properly plugged or repaired when the [well] annular space is no longer sealed or the well is no longer performing its intended function.

AUTHORITY: sections 256.606 and 256.626, RSMo [(1994)] 2000. Emergency rule filed Nov. 16, 1993, effective Dec. 11, 1993, expired April 9, 1994. Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed Nov. 1, 1995, effective June 30, 1996. Amended: Filed Nov. 18, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500)

in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Department of Natural Resources, Geological Survey Program, Sheri Fry, PO Box 250, Rolla, MO 65402 or by email at sheri.fry@dnr.mo.gov. To be considered, comments must be received by February 7, 2011. A public hearing is scheduled for 10:00 a.m. on February 3, 2011, at the department's Division of Geology and Land Survey's Annex Bldg, III Fairgrounds Road, Rolla, Missouri.

**Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 23—Division of Geology and Land Survey
Chapter 4—Monitoring Well Construction Code**

PROPOSED AMENDMENT

10 CSR 23-4.060 Construction Standards for Monitoring Wells. The division is deleting sections (2), (3), (5), (6), (13), and (14), adding new sections (2), (3), and (11)–(13), amending sections (1) and (4), and renumbering and amending the remaining sections.

PURPOSE: This amendment revises the minimum standards for a properly-constructed monitoring well.

(1) Riser Pipe and [Casing] Screen Material.

(A) Chemical Compatibility. [Special consideration must be given to the selection of riser pipe or casing materials for monitoring wells installed in environments that are chemically reactive. The] If used in a monitoring well, the riser pipe [or casing] and screen material selected must resist chemical corrosion for the life of the proposed monitoring program. [Chemical interaction between riser pipe or casing materials and pollutants, contaminants, groundwater, filter pack material and geologic materials could bias groundwater quality determinations.] Well construction material [must be selected that does not affect these determinations] must not alter the results of any groundwater analysis.

(B) Types of Riser Pipe and [Casing] Screen Materials. The types of riser pipe and [casing] screen materials are divided into four (4) categories—

1. Thermoplastic materials, including polyvinyl chloride (PVC) and acrylonitrilebutadiene-styrene (ABS);

2. Metallic materials, including carbon steel, low-carbon steel, galvanized steel, and stainless steel (304 and 316);

3. Fluoropolymer materials, including polytetrafluoroethylene (PTFE), tetrafluoroethylene (TFE), fluorinated ethylene propylene (FEP), perfluoroalkoxy (PFA), [and] polyvinylidene fluoride (PVDF), and polyamides (such as Nylon); and

4. Other types of riser pipe and [casing] screen may be used if approval is obtained in advance from the division.

5. Industry standard mesh material or pre-manufactured slotted screen is the only approved material for screening; hand-cut solid wall pipe is not allowed.

(C) All thermoplastic and fluoropolymer riser pipe [and casings] must meet the requirements set out in 10 CSR 23-3.070(1)(D). [This subsection sets standards for well casing markings.] Thermoplastic and fluoropolymer riser pipe [or casing] used in monitoring well construction must meet the following minimum standards:

1. [The nominal diameter of the riser pipe or casing must not be less than two inches (2"), except that piezometers and field screening temporary wells may have smaller diameter casings.] The minimum nominal diameter for riser pipe

and screen installed in monitoring wells is two inches (2") except that direct push wells may have riser pipe and screen with a minimum nominal diameter of three-quarters of an inch (3/4"). Monitoring wells [utilizing two-inch (2") riser pipe] that are greater than one hundred feet (100') in depth must use Schedule 80 pipe[.];

2. The wall thickness of the riser pipe or [casing] screen must not be less than the Schedule 40 for the nominal size riser pipe or [casing] screen selected, except for gas migration wells utilizing a soil gas implant and tubing[. Thicker walls are recommended in deeper wells or in presence of unstable materials. Wall thickness is also measured in standard dimension ratio (SDR) for thermoplastic riser pipe and casing];

3. Thermoplastic riser pipe and [casing] screen must be joined by a mechanical type joint. The joint must be watertight. If O-rings or fluoropolymer tape is used, they must be of inert materials which will not adversely affect the function of the monitoring well; and

4. Riser pipe and [casing] screen must be new and free from contaminants that would affect the quality of the groundwater or would adversely affect the monitoring.

(D) All metallic riser pipe [and casings] must meet the following minimum standards:

1. The nominal diameter of the riser pipe or [casing] screen must not be less than two inches (2"), except that [piezometers and field screening temporary wells may have smaller diameter casings.] gas migration wells utilizing a soil gas implant and tubing may have riser pipe and screen smaller than one inch (1");

2. The wall thickness for carbon, low-carbon, and galvanized steel must not be less than Schedule 40. The wall thickness of stainless 304 and 316 must not be less than Schedule 5. The joint wall thickness must not be less than Schedule 40, with exception for soil gas monitoring wells utilizing a soil gas implant and tubing[. Due to the thin wall of Schedule 5 stainless casing, threads are not machined into the casing itself. A threaded section of Schedule 40 stainless is welded onto the thin walled casing so that watertight connections can be made without losing strength];

3. Metallic riser pipe [or casings] must be joined by a watertight mechanical joint or welded. [Welded joints can produce a stronger joint than mechanical joints but if explosive gases are present, they may be ignited by the welding process.] The well [must] should be checked for the presence of explosive gases before welding begins[. If explosive gases are present, precautions must be taken before construction continues]; and

4. Riser pipe and [casing] screen material must be new and free from contaminants which would affect the quality of the groundwater or would adversely affect the monitoring.

[(2) Monitoring Well Borehole Preparation. Boreholes constructed for the installation of monitoring wells, including piezometers must be clean, free of obstructions, and must be at least four inches (4") in diameter larger than the outside diameter of the riser pipe, screen and/or surface casing that is used. For wells with multiple strings of different sized casings, the annulus between the successive casing sizes must be at least two inches (2"). Field testing methods such as soil gas monitoring and push-in well screen sampling holes are exempt from these borehole standards. When constructing a monitoring well that utilizes hollow-stem augers to bedrock, then rock drilling to total depth, the following exceptions may apply:

(A) When using an industry standard size six and one-quarter-inch (6 1/4") internal diameter auger to drill the unconsolidated material portion of the well, the bedrock portion of the well must be drilled with a bit which creates a hole that is at least six inches (6") in diameter, if the well is constructed using a nominal two-inch (2") diameter riser

pipe. This will leave an annulus of one and five-sixths inches (1 5/6") within the bedrock portion of the well, which is the minimum allowable annulus for this type of monitoring well; and

(B) When using an industry standard size eight and one-quarter-inch (8 1/4") internal diameter auger to drill the unconsolidated material portion of the well, the bedrock portion of the well must be drilled with a bit which creates a hole that is at least eight inches (8") in diameter, if the well is constructed using a nominal four-inch (4") diameter riser pipe. This will leave an annulus of one and three-quarters inch (1 3/4") within the bedrock portion of the well, which is the minimum allowable annulus for this type of monitoring well.

(3) Piezometer Well Construction. A piezometer must be constructed according to this rule.]

(2) Casing Material. If geologic conditions require the installation of casing material, the following requirements must be met:

(A) Chemical Compatibility. The casing and casing joints selected must resist chemical corrosion for the life of the proposed monitoring program. The joining of two (2) dissimilar metals is not allowed;

(B) Types of Casing Materials. The types of casing materials are divided into four (4) categories—

1. Thermoplastic materials, including polyvinyl chloride (PVC) and acrylonitrilebutadiene-styrene (ABS);

2. Fluoropolymer materials, including polytetrafluoroethylene (PTFE), tetrafluoroethylene (TFE), fluorinated ethylene propylene (FEP), perfluoroalkoxy (PFA), and polyvinylidene fluoride (PVDF). All thermoplastic and fluoropolymer casing material must meet the requirements set out in 10 CSR 23-3.070(1)(D);

3. Metallic materials, including carbon steel, low-carbon steel, galvanized steel, and stainless steel (304 and 316). Steel casing material must meet the requirements set out in 10 CSR 23-3.030(1); and

4. Other types of casing may be used if approval is obtained in advance from the division;

(C) Casing Diameter. The inside diameter of the casing must be a minimum of four inches (4") larger than the nominal outside diameter of the riser pipe being installed;

(D) Casing Borehole Diameter. When installing casing, the borehole for casing must be a minimum of four inches (4") larger in diameter than the nominal outside diameter of the casing being used; and

(E) Casing Grouting Requirements. If casing is required to be installed for a monitoring well completion, the casing must be grouted full length utilizing high solids bentonite slurry or cement slurry as approved under 10 CSR 23-4.060(9). The casing must be grouted full length utilizing the tremie method or one (1) of the pressure grouting methods set out in 10 CSR 23-3.030(3). If the casing cannot be sealed to prevent surface contamination from entering the well, the annular seal for the riser must extend from a point at least two feet (2') below the base of the casing up to the base of the surface completion.

(3) Monitoring Well Borehole Preparation.

(A) All boreholes constructed in the installation of monitoring wells must be clean and free of obstructions.

(B) Boreholes constructed for the installation of gas migration type wells utilizing soil vapor implants must be a minimum of one inch (1") in diameter.

(C) Boreholes constructed for direct push wells must be a minimum of three and one-quarter inches (3.25") in diameter.

(D) The diameter of a borehole constructed for the installation of other types of monitoring wells must be at least four inches

(4") larger than the outside diameter of the riser pipe and screen. Field testing methods such as gas migration monitoring and direct-push wells are exempt from these borehole standards if properly plugged within thirty (30) days of completion. When constructing a monitoring well that utilizes hollow-stem augers to bedrock, then rock drilling to total depth, the following exceptions apply:

1. When using an industry-standard-size six and one-quarter-inch (6 1/4") internal diameter hollow stem auger to drill the unconsolidated material portion of the well, the bedrock portion of the well must be drilled with a bit which creates a hole that is at least six inches (6") in diameter for a well constructed using a nominal two-inch (2") diameter riser pipe; and

2. When using an industry standard size eight and one-quarter-inch (8 1/4") internal diameter hollow stem auger to drill the unconsolidated material portion of the well, the bedrock portion of the well must be drilled with a bit which creates a hole that is at least eight inches (8") in diameter for a well constructed using a nominal four-inch (4") diameter riser pipe.

(4) Open-Hole Completions. Open-hole completed monitoring wells are allowed only upon written approval in advance from the division. In all cases, the open-hole portion of the well must be in competent, consolidated bedrock, and the casing must extend from the surface to *[at least five feet (5') into bedrock]* the minimum total depth and minimum depth into bedrock required, under 10 CSR 23-3.090 or 10 CSR 23-3.100 for a domestic well at that location. The casing must be grouted full-length using methods and materials as required under 10 CSR 23-4.060(2)(E).

[(5) The joining of two (2) dissimilar metals is not permitted due to the potential for galvanic corrosion.]

[(6) Decontamination of Well Construction Materials and Equipment.

(A) Hazardous Waste Sites. All materials used in the construction of the monitoring well must be decontaminated on-site by use of steam, high pressure water or be certified by the manufacturer as clean and be wrapped to ensure cleanliness. This includes, but is not limited to, the drilling rig, drilling equipment, drilling fluids, grouting equipment, well screen, riser pipe, filter pack material and other materials that come in contact with the monitoring well environment which could possibly cause contamination. After the well construction material has been cleaned, it must not come in contact with the ground or any other source of contamination. Well construction personnel must take precautions to ensure grease, oil or other contaminants do not come in contact with the well screen and the riser pipe during construction. Personnel must wear appropriate apparel while constructing the well to protect them from contamination and from contaminating the monitoring well. A protective ground covering or other devices should be placed at the wellhead during construction activities to protect all materials from potential ground surface contamination.

(B) Nonhazardous Waste Sites. Precautions must be taken to ensure that monitoring well construction operations are carried out in such a way as not to harm the environment or adversely influence the operation of the monitoring well.]

[(7)](5) Installation of Well Screen and Riser Assembly. The well screen and riser assembly must be centered in the borehole before the installation of the filter pack, unless a prepack filter is used. The riser pipe must extend [at least one foot (1') above the finished grade in nonflood potential areas and] from the well screen into the surface completion. In a flood prone area, the riser pipe must be at least two feet (2') above the finished surface grade [in flood prone areas] and be equipped with a watertight cap. Wells installed in traffic ways may be flush mounted (subsection

[(12/11)(B)). [The use of centralizers on the riser assembly is required and must be placed just above the well screen and as needed up the hole to maintain the riser assembly in the center of the borehole. The type of centralizer used must not prevent emplacement of filter pack materials or annular seals.] Unless they are direct-push wells, monitoring wells in excess of fifty feet (50') in depth must have centralizers to ensure the well string is properly plumbed. A centralizer must be placed at the base of the well screen and on the riser at the top of the filter pack. The specific placement intervals for additional centralizers on the riser should be based on site-specific conditions and ensure the placement of the filter pack, bentonite seal, and annular seal will not be hindered. The use of centralizers in wells constructed through hollow stem augers [or wells less than fifty feet (50') in depth] is not required.

[(8)](6) Installation of Primary Filter Pack. After the well screen and riser assembly are installed in the well, the filter pack materials [can] must be emplaced. [Proper design of monitoring wells drilled in unconsolidated to poorly consolidated geologic material must include an appropriately sized well screen and filter pack. It is recommended that screen slot size and filter pack size be determined by sieve analysis of formation material to be monitored. The grain size and gradation of the filter pack are selected to stabilize the hydrologic unit adjacent to the screen and permit only the finest soil grains to enter the screen during development. The purpose of the filter pack is to prevent or minimize the entrance of fine material into the well and provide a representative water sample from the monitoring horizon. Sediment-free water reduces the potential for interference in sample analyses and is evidence that proper development of the well has occurred. The use of a fine screen and appropriately sized filter pack is permitted without sieve analysis.]

(A) Artificially Constructed Filter Pack Placement. The filter pack material must be placed evenly around the well screen via a tremie pipe. The tremie pipe must be placed near the bottom of the well screen and the filter pack material poured into the tremie pipe while the pipe is slowly removed. A weighted measuring device must be used to ensure that the filter pack is properly installed to the desired depth. All volumes of filter pack material anticipated for construction must be calculated prior to placement. The filter pack material must fill from the bottom of the borehole to within [two feet to five feet (2'-5')] one to five feet (1'-5') above the well screen. If [the borehole is not stable and] the well is drilled utilizing the hollow stem auger method, the filter pack material may be poured through the hollow stem auger as it is removed from the borehole. [This is allowed only in the unsaturated zone.] If the screen is set more than twenty-five feet (25') into the saturated zone or placed into drilling fluid other than clean water or air, the filter pack placement must be via tremie, unless hollow stem augers are used. Prepacked filter pack assemblies and prepack seals which are hydrated may be used.

(B) Naturally Developed Filter Pack Placement. Allowing the existing geologic material to collapse around the well screen is an acceptable method of filter pack emplacement in only a few geologic conditions. Naturally developed filter packs are only allowable when they can be developed properly. [The higher permeability envelope of material is developed in place by the removal of the fine-grained material during proper well development process.]

(C) [In very] When installing a monitoring well for shallow monitoring [wells], the [amount of filter pack material that extends above the well screen may need to be limited to ensure an adequate length of annular seal.] primary filter pack must extend a minimum of six inches (6") above the top of the well screen. Soil vapor implants are required to have a minimum primary filter pack of six inches (6") above and below each implant.

[(9)](7) The [//]installation of a [S]secondary [F]filter [P]pack is required unless non-slurry bentonite is used as a bentonite seal or annular seal. The purpose of a secondary filter pack, which is placed directly on top of the primary filter pack, is to ensure that annular seal slurry grouts do not infiltrate into the primary filter pack. The secondary filter pack must extend from one foot to two feet (1'-2') above the primary filter pack and shall consist of one foot to two feet (1'-2') of clean fine sand. A secondary filter pack is not required if the bentonite seal or annular seal is composed of non-slurry bentonite.

[(10)](8) The [//]installation of [the] a [B]/bentonite [S]seal is required if the annular seal is composed of slurry grout material and a secondary filter pack is not used. [The bentonite seal is emplaced directly over the secondary filter pack or primary filter pack if a secondary filter is not necessary and must be from three feet to five feet (3'-5') thick.] The purpose of the bentonite seal is to keep the slurry grout which is emplaced above from mixing with the primary and secondary filter pack materials. **If required, the bentonite seal must be a minimum of two feet (2') thick.**

(A) Placement of the Bentonite Seal in the Saturated Zone. When the bentonite seal is to be emplaced in the saturated zone, only chipped or pelletized bentonite that is designed to fall through standing water before it hydrates may be used. To avoid flash swelling and bridging, the fine bentonite material, which may develop during transport, must not be introduced into the well bore. *[One way to accomplish this is to pour bentonite over a screen so that the fine bentonite material which may develop on transport of the product, is filtered out of the bentonite.]* A weighted measuring device must be utilized to ensure the bentonite chips are evenly placed around the riser pipe. *[All volumes of bentonite must be calculated prior to construction.]*

(B) Placement of the Bentonite Seal in the Unsaturated Zone. When the top of the secondary filter pack is in the unsaturated zone, the use of chipped, pelletized, or granular bentonite is permitted only if the bentonite is *[emplaced in one foot (1') layers that are] hydrated in place with potable water [before the succeeding layers are emplaced]*. Bentonite slurry may be used and must fill the annular space from the top of the secondary filter pack to the surface seal. The bentonite slurry must be emplaced through a tremie pipe. **If the total depth of the slurry being placed exceeds five feet (5'), [with] a side discharge is required** so as to limit disruption of the filter packs.

(C) Nested well construction will be considered on a case-by-case basis. Pre-approval, by the division, is required, via the variance process, before construction begins. However, nested soil vapor implants are required to have a minimum bentonite seal of one foot (1') between each primary filter pack and a minimum of one and one-half feet (1.5') of bentonite seal from the uppermost primary filter pack and the surface completion.

[(11)](9) Installation of the Annular Seal. The monitoring well environment may contain many chemicals or organic compounds that could affect the sealing capabilities of various kinds of grout. The type of grout used must be able to function to one hundred percent (100%) of its designed sealing capabilities until the well is properly plugged. The type of grout used must not influence, contaminate, or hinder the use of the monitoring well for its designed purpose. The annular seal must extend from the secondary filter pack or bentonite seal to the base of the protective casing. **The combined annular seal and bentonite seal (if a bentonite seal is utilized) must be at least two feet (2') thick unless monitoring for shallow contaminants. Monitoring wells constructed for shallow monitoring, as defined in 10 CSR 23-4.010, must have a minimum combined annular seal and bentonite seal (if a bentonite seal is utilized) of at least one foot (1').** The following four (4) grout types are permitted in monitoring wells:

(A) Bentonite Slurry-Grout. High solids sodium bentonite slurry, at least twenty to thirty percent (20%-30%) by weight solids, must be tremie grouted from the bottom to the top of the annular space in one (1) continual operation. *This grout is recommended for use in most monitoring well situations. Additives may be used to increase or decrease set times for the slurry, with prior approval from the division. Polymer additives may not be used in construction of monitoring wells when investigation may involve hazardous constituents;*

(B) Nonslurry Bentonite. Sodium bentonite comes in many shapes and sizes. Nonslurry bentonite includes chips, pellets, granules, and powdered varieties. Chipped or pelletized varieties that are designed to fall through standing water may be used when sealing the annulus of a well that is below the saturated zone. Granulated and powdered bentonite must never be poured through standing water because they will flash swell and bridge off before it gets to the bottom of the annular space. Bentonite[,] chips or pellets may be used to seal portions of the annular space that are in the unsaturated zone. Granulated and powdered varieties are not permitted to be used in the unsaturated zone unless they are used to create a slurry, due to their flash swelling properties which would prevent hydration of the complete column of bentonite. *[The effective use of bentonite chips or pellets as a sealing agent depends on the efficient hydration of the bentonite following emplacement. Therefore, w/When using bentonite chips or pellets in the unsaturated zone, it must be hydrated after each three feet (3') interval has been emplaced. To properly hydrate the bentonite, a minimum of three (3) times as much water as bentonite must be used. [Quality of water is very important in the hydration process. Bentonite chips or pellets may not adequately hydrate if any of the following chemical parameters exist in the water used for hydration: 1) greater than five hundred (500) parts per million (ppm) total dissolved solids (TDS), 2) high chlorides, 3) large quantities of organic solvents or acids, and 4) separate-phase petroleum hydrocarbons] Water used must be of potable quality;*

(C) Cement Slurry. Neat cement slurry is a mixture of one (1) ninety-four pound (94 lb.) bag of Portland Type I cement and six (6) gallons of clean water *[and is the most commonly used cement product for sealing annular spaces]*. Five (5) general types of cement are produced: Type I, for general use; Type II, for moderate sulfate resistance or moderate heat of hydration; Type III, for hi-early strength; Type IV, for low heat of hydration; and Type V, for high sulfate resistance. Following are some problems associated with cement slurry grout usage:

[1. During the curing process of cement slurry, the chemical reactions that take place produce heat as a by-product. This heat of hydration can, in some cases, cause failures when riser pipe or casing is made of PVC or ABS materials. When neat cement slurry is used to fill annular spaces that are one and one-half inches to four inches (1 1/2"-4"), temperature increases from sixteen degrees Fahrenheit to forty-five degrees Fahrenheit (16 °F-45 °F) can be achieved. If there is a small washout of the annular space, that increases it to twelve inches (12") and this space is filled with neat cement slurry, temperature increases up to one hundred and seventy degrees Fahrenheit (170 °F) can be achieved. These extreme temperatures can cause riser pipe or casing failures (see 10 CSR 23-3.070(3)(G) for table showing percent of strength loss for PVC casing with elevating temperatures);]

[2.]1. Type [//]III cement used to produce a hi-early strength and additives that are used to speed up set times of cement slurries cause higher than normal heat of hydration temperatures. These can only be used in association with metallic casings or riser pipes with prior approval by the division;

[3. Another problem that occurs during the curing process of neat cement slurry is that it shrinks from twelve

percent to seventeen percent (12%—17%). This shrinkage is not acceptable for monitoring well applications;]

[4.]2. Cement slurry may only be used if additives are incorporated to minimize shrinkage.

A. Bentonite is the most commonly used additive to prevent shrinkage of cement slurries. The powdered bentonite must be thoroughly mixed with the water before it is added to the cement. Powdered bentonite from two percent to six percent (2%–6%) by weight must be added. The added bentonite improves the workability of the slurry, reduces shrinkage, and reduces the heat of hydration. This additive does reduce the strength of the seal but is adequate for annular sealing. For each percent of bentonite by weight added to a ninety-four pound (94 lb.) bag of Type I cement an additional six-tenths (.6) gallon of water must be added. The following table sets out the amount of bentonite and water needed to be a ninety-four pound (94 lb.) bag of Type I cement to get from one to six percent (1%–6%) cement-bentonite mixture.

CEMENT/BENTONITE SLURRY CALCULATIONS

Product	% bentonite added/ sk cement	total water requirement (gallons)
Type I Portland 1 sack=94 lbs.	[0]	[5.2 to 6]
	1% bentonite=.94 lbs. bentonite/sk of cement	5.8 to 6.6
	2% bentonite=1.9 lbs. bentonite/sk of cement	6.4 to 7.2
	3% bentonite=2.8 lbs. bentonite/sk of cement	7 to 7.8
	4% bentonite=3.8 lbs. bentonite/sk of cement	7.6 to 8.4
	5% bentonite=4.7 lbs. bentonite/sk of cement	8.2 to 9
	6% bentonite=5.7 lbs. bentonite/sk of cement	8.8 to 9.6

B. Other shrinkage reducing additives must be approved in advance by the division;

[5.]3. The water used to mix cement slurry must be [clean water, free of oil or other organic material and the total dissolved mineral content must be less than two thousand (2000) ppm. If too much water is used, the grout will be weakened and excessive shrinkage will occur upon curing] of potable quality; and

[6.]4. Cement slurry must be emplaced in the annulus via a tremie pipe placed to the bottom of the annular space. The tremie pipe must have a side discharge which directs the grout away from the bentonite seal, reducing the potential for infiltration. Care must be taken so as not to dislodge the bentonite seal that is above the primary filter pack. The grouting of the annular space must be completed in one (1) continual operation, lifting the tremie pipe as the space fills. If determined necessary by the division, a staged grouting procedure will be approved;

(D) Other types of grout may be used when necessary and for good cause if prior approval by the division is granted; and

(E) When zones of high grout loss are anticipated or experienced, contact the division for alternative methods to seal the annulus.

[(12)](10) Well Protection. Surface protection on [monitoring wells is needed] all regulated monitoring wells is required to deter unauthorized entry, prevent surface water from entering the annular space, and to protect the well from accidental damage caused by collision from vehicles or heavy equipment. The two (2) types of

[protective casing] surface completion designs are above-ground completions and flush-mount completions. Temporary monitoring wells that are plugged within forty-eight (48) hours of initial installation are not required to have a secure cap or locking device.

(A) Above-Ground Completions. Above-ground completions must meet the following standards:

1. The protective casing must extend from at least one and one-half feet (1 1/2') above the finished grade of the ground surface to a point at least two feet (2') below the finished grade, except as stated in subsection [(12/11)](B) of this rule for flush-mount completions. The riser pipe must be at least two inches (2") below the top of the [protective casing] above-ground completion. The [casing] above-ground completion must be placed in a [n enlarged] hole that is at least eight inches (8") in diameter larger than the [protective casing] above-ground completion size. Care must be taken so that the shape of this hole, when filled with concrete [or cement-slurry], does not encourage frost heaving. The protective casing must be centered in this hole and concrete poured around the casing to secure it. Cement or bentonite slurry is not [to be used] allowed. All water must be removed from the enlarged hole before concrete [may be] is added. The surface of the [grout] concrete must slope away from the protective casing so that pooling of surface water does not occur;

2. [A small diameter hole must be drilled into the protective casing near the ground level to drain any water that fills the protective casing annulus. Installation of a small amount of gravel for filling the annular space above the drain hole or installing a screen on the drain hole should be sufficient to prevent insects from entering this area] A weep hole or alternate method must be employed to ensure water does not accumulate inside the protective casing to the point that the top of the riser is submerged, except on temporary wells that are plugged within forty-eight (48) hours of initial installation;

3. A locking well cap and a suitable lock must be attached to the top of the [protective casing] above-ground completion. The riser pipe must be sealed with a watertight cap and must extend at least two feet (2') above the finished surface grade in flood prone areas [and be equipped with a watertight cap]. Temporary monitoring wells are exempt from this paragraph if they are plugged within forty-eight (48) hours of initial installation; and

[4. All monitoring wells that have a protective casing extending from the ground must have a marker to show location. This marker must be plainly visible so that it can be easily located and its presence will help to prevent accidental damage. In some situations, it may be required that additional protective devices be installed, such as metal concrete filled posts (bolsters) or fencing. This is to prevent damage or unauthorized entrance; and]

[5.]4. All monitoring wells must be [labeled] uniquely identified so as to distinguish one (1) well from another on the monitoring site and on the monitoring well certification form.

(B) Flush-Mount Well Completions. [Monitoring wells may only be completed utilizing a flush mount when they must be located in traffic areas.] Flush-mount completions must meet the following standards. In a flush-to-ground completion, the flush-mount assembly is installed around the riser pipe that has been cut off below grade. The flush-mount assembly must be at least eight inches (8") in length and have a [lockable] tamper-resistant watertight [cap] lid. The riser pipe must be sealed with a watertight cap. The [assembly] flush-mount surface completion must be set into a hole that is at least eight inches (8") in diameter larger than the diameter of the flush-mount assembly and set in concrete. This completion must withstand all stresses due to traffic and to freeze thaw processes. If the monitoring well is being placed through asphalt or concrete, a hole that is at least four inches (4") in diameter larger than the diameter of the flush-mount assembly must be

[drilled] constructed. The flush mount must then be set in concrete. Cement or bentonite slurry is not **allowed**. *[permitted. In areas where significant amounts of runoff occurs, additional safeguards to manage drainage may be necessary to discourage entry of surface runoff.]*

[(13) Wells must be adequate in size, design and development for the intended use.]

[(14) Extraction wells must be constructed to standards determined on a case-by-case basis by the division].

(11) Wells must be adequate in size and design for the intended use. Wells should be properly developed in order to allow the collection of representative samples from the horizon being monitored.

(12) Alternate monitoring well construction procedures, methods, or technologies will be considered on a case-by-case basis. Written approval in advance by the division is required.

(13) The installation and use of sampling, development, maintenance, or testing devices and equipment in monitoring wells is not regulated except that the installation of a pumping system in wells used for remediation or clean-up must be performed by a nonrestricted pump installation contractor.

AUTHORITY: sections 256.606 and 256.626, RSMo [(1994)] 2000. Emergency rule filed Nov. 16, 1993, effective Dec. 11, 1993, expired April 9, 1994. Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed July 13, 1994, effective Jan. 29, 1995. Amended: Filed Nov. 1, 1995, effective June 30, 1996. Amended: Filed Nov. 18, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Department of Natural Resources, Geological Survey Program, Sheri Fry, PO Box 250, Rolla, MO 65402 or by email at sheri.fry@dnr.mo.gov. To be considered, comments must be received by February 7, 2011. A public hearing is scheduled for 10:00 a.m. on February 3, 2011, at the department's Division of Geology and Land Survey's Annex Bldg, III Fairgrounds Road, Rolla, Missouri.

Title 10—DEPARTMENT OF NATURAL RESOURCES Division 23—Division of Geology and Land Survey Chapter 4—Monitoring Well Construction Code

PROPOSED RESCISSION

10 CSR 23-4.070 Monitoring Well Development. This rule described the minimum standards that must be met in developing a monitoring well.

PURPOSE: This rule is being rescinded as monitoring well development is not regulated through the Missouri Well Construction Code.

AUTHORITY: sections 256.606, 256.626, and 256.637, RSMo 1994. Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed July 13, 1994, effective Jan. 29, 1995. Amended:

Filed Nov. 1, 1995, effective June 30, 1996. Rescinded: Filed Nov. 18, 2010.

PUBLIC COST: This proposed rescission will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed rescission will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rescission with the Department of Natural Resources, Geological Survey Program, Sheri Fry, PO Box 250, Rolla, MO 65402 or by email at sheri.fry@dnr.mo.gov. To be considered, comments must be received by February 7, 2011. A public hearing is scheduled for 10:00 a.m. on February 3, 2011, at the department's Division of Geology and Land Survey's Annex Bldg, III Fairgrounds Road, Rolla, Missouri.

Title 10—DEPARTMENT OF NATURAL RESOURCES Division 23—Division of Geology and Land Survey Chapter 4—Monitoring Well Construction Code

PROPOSED AMENDMENT

10 CSR 23-4.080 Plugging of Monitoring Wells. The division is amending section (1), deleting sections (4) and (5), and amending and renumbering the remaining sections.

PURPOSE: This amendment revises the standards for the plugging of monitoring wells.

(1) A monitoring well that is abandoned as defined in 10 CSR 23-1.010(1) must be plugged *[immediately]*. If a monitoring well has been determined to present a threat to groundwater, **or determined to be in such a state of disrepair that the well cannot be used for its intended purpose**, the division may order that the well be permanently plugged.

(2) When plugging a monitoring well, the following minimum requirements shall be met:

(A) All pumps, sampling equipment, debris, or other substances must be removed *[that would interfere with the proper plugging of the well]*;

(B) All protective casing **and permanent casing**, riser pipe, and well screen must be removed from the borehole, *[if possible,]* unless approved **in writing** by the division **through the variance process outlined in 10 CSR 23-1.040**. *[Because the primary purpose of well plugging is to eliminate vertical fluid migration along the borehole, the preferred method of plugging involves casing and riser pipe removal.]* If, when removing the casing, the borehole begins to collapse, grout must be simultaneously emplaced while the casing is removed to ensure a proper seal. *[In certain situations, the casing or riser pipe must be drilled out if it cannot be removed before the well is plugged. These situations will be determined on a case-by-case basis by the division. When casing is not required to be removed or if after attempting to remove the casing, it is not possible to remove it, then a hole must be dug around the casing three feet (3') deep and the casing and riser pipe cut off at that depth];*

(C) The well must be filled from bottom to top with grout. 10 CSR 23-4.060/(11)/(9) sets standards for grout types that may be used when plugging monitoring wells; *[and]*

(D) If bentonite grout is used, after the grout is fully cured, check for settlement and top off if necessary. Fill with soil and compact the upper two feet (2') of hole or pave. The purpose of the compacted

soil is to ensure that dehydration of the bentonite grout does not occur over time. If cement-slurry grout is used, fill the upper two feet (2') with soil or pave. *Slight mounding over the well is recommended to prevent water from standing in the immediate area of the well.*; and

(E) A monitoring well that is less than twenty-four feet (24') in total depth may be totally excavated as opposed to being plugged with grout. If the excavation requires the replacement of material, compacted uncontaminated native material must be used. If this method is chosen, the well must be completely excavated, and a non-restricted monitoring well installation contractor must be on site at all times.

[(2)](3) The plugging or complete excavation of [all] a monitoring well/s must be reported on a registration report form supplied by the division; **this includes monitoring wells which cannot be located and, therefore, cannot be plugged properly.** [These forms must be submitted, along with the fee, within sixty (60) days of the plugging (see 10 CSR 23-2 for applicable fees). If the review of the registration report form shows that the well has been plugged according to the rules, a registration number will be issued and sent to the well owner. The registration number indicates that the well was plugged according to the standards set out in the rules. When field screening type of temporary wells are drilled, usually multiple installations per monitoring site are used. All temporary wells per monitoring site may be reported on one (1) registration report form if they are all plugged the same way and only one (1) registration fee is required per site.]

[(3)](4) Monitoring wells must be plugged by a [permitted] **nonrestricted** monitoring well installation contractor.

[(4) Material used to plug monitoring wells must be compatible with any contaminants in the well so that the plugging action of the grout is not destroyed by any chemical reactions that may take place in the borehole environment.]

[(5) Monitoring wells less than ten feet (10') in depth must be plugged by returning uncontaminated native material or grout into the hole it was taken from, no reporting is required for these wells.]

[(6)](5) Temporary monitoring wells [greater than] ten feet (10') or greater in depth must be plugged by removing any temporary pipe and filling the well from total depth to [ten feet (10')] **three feet (3')** from the surface with approved grout, with the remainder of the well filled with compacted uncontaminated native material or grout.

AUTHORITY: sections 256.606, 256.615, and 256.623, RSMo [(1994)] **2000**. Emergency rule filed Nov. 16, 1993, effective Dec. 11, 1993, expired April 9, 1994. Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed July 13, 1994, effective Jan. 29, 1995. Amended: Filed Nov. 1, 1995, effective June 30, 1996. Amended: Filed Nov. 18, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Department of Natural Resources, Geological Survey Program, Sheri Fry, PO Box 250,

Rolla, MO 65402 or by email at sheri.fry@dnr.mo.gov. To be considered, comments must be received by February 7, 2011. A public hearing is scheduled for 10:00 a.m. on February 3, 2011, at the department's Division of Geology and Land Survey's Annex Bldg, 111 Fairgrounds Road, Rolla, Missouri.

**Title 11—DEPARTMENT OF PUBLIC SAFETY
Division 45—Missouri Gaming Commission
Chapter 12—Liquor Control**

PROPOSED AMENDMENT

11 CSR 45-12.090 Rules of Liquor Control. The commission is amending subsection (5)(B) and adding paragraphs (5)(B)1.-3.

PURPOSE: This amendment revises the restrictions for consumption of alcoholic beverages by employees.

(5) Employees.

(B) An excursion liquor licensee may submit to the director a written request for authorization for—

1. *Level I licensees or applicants, the licensee's food and beverage director or corporate officers to consume alcoholic beverages in the nongaming areas of the premises for business purposes. The director's authorization or denial shall be in writing. Beverage servers are prohibited from taste-testing alcoholic beverages on an excursion gambling boat or facility immediately adjacent to an excursion gambling boat; however, the licensee may train beverage servers at an off-site location by using taste-testing in order to inform the beverage server about the characteristics of beverages offered by the licensee.*;

2. *Employees to consume alcoholic beverages in the nongaming areas of the premises at specific functions sponsored by the excursion liquor licensee. The director's authorization or denial shall be in writing; or*

3. *Training beverage servers in the nongaming areas of the premises by using taste testing in order to inform the beverage server about the characteristics of beverages offered by the licensee. The director's authorization or denial shall be in writing.*

AUTHORITY section[s] 313.004, RSMo 2000 and sections 313.805 and 313.840, RSMo Supp. [2006] **2010**. Emergency rule filed Sept. 1, 1993, effective Sept. 20, 1993, expired Jan. 17, 1994. Emergency rule filed Jan. 5, 1994, effective Jan. 18, 1994, expired Jan. 30, 1994. Original rule filed Sept. 1, 1993, effective Jan. 31, 1994. For intervening history, please consult the **Code of State Regulations**. Amended: Filed Dec. 1, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Gaming Commission, PO Box 1847, Jefferson City, MO 65102. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. A public hearing is scheduled for February 16, 2011, at 10:00 a.m., in the Missouri Gaming Commission's Hearing Room, 3417 Knipp Drive, Jefferson City, Missouri.

Title 13—DEPARTMENT OF SOCIAL SERVICES
Division 70—MO HealthNet Division
Chapter 3—Conditions of Provider Participation,
Reimbursement and Procedure of General Applicability

PROPOSED RESCISSION

13 CSR 70-3.110 Second Opinion Requirement Before Nonemergency Elective Surgical Operations. This rule implemented that a second medical opinion must be obtained before Medicaid will pay for certain nonemergency, elective surgical procedures and the related costs of these surgical procedures.

PURPOSE: This rule is being rescinded as the required second opinion adds to the cost of the service without adding significant prior authorization protections.

AUTHORITY: section 207.020, RSMo Supp. 1993. This rule was previously filed as 13 CSR 40-81.052. Emergency rule filed Sept. 18, 1981, effective Sept. 28, 1981, expired Jan. 13, 1982. Original rule filed Sept. 18, 1981, effective Jan. 14, 1982. Rescinded: Filed Dec. 1, 2010.

PUBLIC COST: This proposed rescission will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed rescission will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rescission with the Department of Social Services, MO HealthNet Division, 615 Howerton Court, Jefferson City, MO 65109. To be considered, comments must be delivered by regular mail, express or overnight mail, in person, or by courier within thirty (30) days after publication of this notice in the *Missouri Register*. If to be hand-delivered, comments must be brought to the MO HealthNet Division at 615 Howerton Court, Jefferson City, Missouri. No public hearing is scheduled.

Title 13—DEPARTMENT OF SOCIAL SERVICES
Division 70—MO HealthNet Division
Chapter 97—Health Insurance Premium Payment (HIPP)
Program

PROPOSED AMENDMENT

13 CSR 70-97.010 Health Insurance Premium Payment (HIPP) Program. The division is amending section (4).

PURPOSE: This amendment adds language to give the department the ability to look at other options available that would cover all MO HealthNet participants but would not have to cover the whole family.

(4) Coverage of Non-MO HealthNet-Eligible Family Members. When it is determined to be cost-effective, the department shall pay for health insurance premiums for non-MO HealthNet-eligible family members if a non-MO HealthNet-eligible family member must be enrolled in the health plan in order to obtain coverage for the MO HealthNet-eligible family members. **When the department determines the health insurance plan or policy not to be cost effective due to the cost of paying for non-MO HealthNet-eligible family members, the department shall consider the cost of the insurance premiums for the policyholder and MO HealthNet-eligible family members only in the determination. This exception shall only apply if the option is available with the health insurance plan.**

However, the needs of the non-MO HealthNet-eligible family members shall not be taken into consideration when determining cost-effectiveness, and payments for deductibles, coinsurances, or other cost-sharing obligations shall not be made on behalf of family members who are not MO HealthNet-eligible.

AUTHORITY: sections 208.153 and 208.201, RSMo Supp. [2007] 2010. Original rule filed June 30, 1994, effective Jan. 29, 1995. Emergency amendment filed Aug. 19, 2005, effective Sept. 1, 2005, expired Feb. 27, 2006. Amended: Filed June 1, 2005, effective Nov. 30, 2005. Amended: Filed Feb. 1, 2008, effective Aug. 30, 2008. Amended: Filed Dec. 1, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Department of Social Services, MO HealthNet Division, 615 Howerton Court, Jefferson City, MO 65109. To be considered, comments must be delivered by regular mail, express or overnight mail, in person, or by courier within thirty (30) days after publication of this notice in the *Missouri Register*. If to be hand-delivered, comments must be brought to the MO HealthNet Division at 615 Howerton Court, Jefferson City, Missouri. No public hearing is scheduled.

Title 15—ELECTED OFFICIALS
Division 30—Secretary of State
Chapter 54—Exemptions and Federal Covered Securities

PROPOSED AMENDMENT

15 CSR 30-54.210 Notice Filings for Transactions under Regulation D, Rules 505 and 506. The commissioner is amending subsections (1)(A) and (1)(B) and sections (2) and (3), adding a new section (4), and renumbering the remaining section.

PURPOSE: This amendment changes the notice filing requirements for securities offerings made under Regulation D, Rules 505 and 506. These amendments are necessary to align Missouri's filing requirements with federal law.

(1) Rule 505.

(A) Pursuant to section 409.2-203 of the Missouri Securities Act of 2003 (the Act), transactions that are exempt securities under 17 CFR 230.505 are exempt from section 409.3-301, RSMo. As a condition of this exemption, the issuer shall comply with the requirements in sections (3) and (4) below.

(B) Disqualification. The exemption under subsection (1)(A) is not available to an issuer if the issuer, any of the issuer's predecessors, any affiliated issuer, any of the issuer's directors, officers, general partners, beneficial owners of ten percent (10%) or more of any class of its equity securities, any of the issuer's promoters presently connected with the issuer in any capacity, any underwriter of the securities to be offered, or any partner, director, or officer of such underwriter:—

1. Within the last five (5) years, has filed a registration statement which is the subject of a currently effective registration stop order entered by any state securities administrator or the U.S. Securities and Exchange Commission (SEC);

2. Within the last five (5) years, has been convicted of any criminal offense in connection with the offer, purchase, or sale of any security, or involving fraud or deceit;

3. Is currently subject to any state or federal administrative enforcement order or judgment, entered within the last five (5) years, finding fraud or deceit in connection with the purchase or sale of any security; or

4. Is currently subject to any order, judgment, or decree of any court of competent jurisdiction, entered within the last five (5) years, temporarily, preliminary, or permanently restraining or enjoining such party from engaging in or continuing to engage in any conduct or practice involving fraud or deceit in connection with the purchase or sale of any security.

(2) Rule 506. The issuer shall file a notice under section 409.3-302(c), RSMo, as stated in sections (3) and (4) below.

(3) Notice Filings for Rules 505 and 506. The notice filing required for transactions in Missouri under 17 CFR 230.505 and 17 CFR 230.506, unless the securities or transactions would qualify for an exemption under sections 409.2-201, 409.2-202, or 409.2-203 of the Act, shall consist of the following:

(A) One (1) *[manually signed]* paper copy of the **electronic** Form D *[(including the Appendix)]* **filed with the SEC;**

[(B) A Form U-2, Consent to Service of Process;]

[(C)](B) The filing fee of one hundred dollars (\$100) as described in 15 CSR 30-50.030; and

[(D)](C) *[Each notice shall be filed with the division no later than fifteen (15) calendar days after the first sale of the securities in Missouri.]* A cover letter *[should be included in the notice filing which states]* **stating** the date *[in]* **on** which the first sale of securities had occurred in Missouri **or whether no sales have yet occurred in Missouri.**

(4) Each notice shall be filed with the commissioner no later than fifteen (15) calendar days after the first sale of the securities in Missouri, unless the due date falls on a Saturday, Sunday, or holiday, in which case the due date is the first business day following.

[(4)](5) Amendments. During the period of the offering, the issuer shall take steps necessary to insure that all material information contained in the notice filing remains current and accurate.

AUTHORITY: sections 409.2-203, 409.3-302, and 409.6-605, RSMo Supp. [2003] 2010. Emergency rule filed Aug. 12, 1982, effective Aug. 22, 1982, expired Dec. 10, 1982. Original rule filed Aug. 11, 1982, effective Dec. 11, 1982. For intervening history, please consult the Code of State Regulations. Amended: Filed Nov. 30, 2010.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Secretary of State's Office, Matt Kitzi, Commissioner of Securities, 600 West Main Street, Jefferson City, MO 65101. To be considered, comments must be received within thirty (30) days after publication of this notice in the *Missouri Register*. No public hearing is scheduled.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 1—General Rules**

PROPOSED RULE

20 CSR 2063-1.005 Behavior Analyst Advisory Board

PURPOSE: Pursuant to section 337.310, RSMo, this rule outlines policies and procedures for the Behavior Analyst Advisory Board.

(1) The purpose of the board is to regulate the practice of behavior analysis concerning the health, safety, and welfare of the inhabitants of this state; to protect the property of the inhabitants of this state from damage or destruction through the dangerous, dishonest, incompetent, or unlawful practice of behavior analysis; and to implement and sustain a system for the examination and regulation of licensed behavior analysts and assistant behavior analysts in this state.

(2) The board shall meet at least quarterly. Additional meetings may be held at the discretion of the board; however, the board shall inform the division of those meetings and the notice of the meeting will be posted in compliance with Chapter 610, RSMo.

(3) Each year, the board shall elect a chair and vice-chair. The chair presides at meetings and works with the executive director on coordinating the board's affairs. If the chair is unable to attend a meeting, the vice-chair shall preside at the meeting.

(4) The board shall act through its executive director who is appointed by the director of the Division of Professional Registration. The executive director shall be responsible for keeping the minutes of board proceedings and perform other duties as requested by the board.

(5) A quorum of the board shall consist of a majority of its members.

(6) Board meetings will generally consist of reviewing applications, interviewing applicants, reviewing complaints and inquiries, determining disciplinary actions regarding licensed behavior analysts or assistant behavior analysts, making recommendations to staff concerning the conduct and management of board affairs, and other board matters.

(7) Unless otherwise provided by statute or regulation, the board shall be generally guided by and conduct its meetings according to *Robert's Rules of Order*.

(8) Any person requiring information, an application, or complaint form involving the practice of behavior analysis as regulated by the board may contact the board.

AUTHORITY: sections 337.305 and 337.310, RSMo Supp. 2010. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost state agencies and political subdivisions approximately two hundred ten dollars (\$210) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the *Missouri Register*. No public hearing is scheduled.

PUBLIC FISCAL NOTE**I. RULE NUMBER****Title 20 - Department of Insurance, Financial Institutions and Professional Registration****Division 2063 - Behavior Analyst Advisory Board****Chapter 1 - General Rules****Proposed Rule - 20 CSR 2063-1.005 Behavior Analyst Advisory Board**

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$210

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Attorney General, Secretary of State and State Auditor.

Table 1 – Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure – 2%	Enforcement - 4%
Personal Service	\$11	\$34
Expense & Equipment	\$38	\$118
Transfers	\$2	\$7
TOTAL	\$51	\$159

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2— Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3— Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4— Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that 2% of the total time involving the administration of the proposed rule will be spent on licensure efforts and 4% of the time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 1—General Rules**

PROPOSED RULE

20 CSR 2063-1.010 Definitions

PURPOSE: This rule establishes various definitions and terms used in 20 CSR 2063.

(1) Applicant—An individual applying for licensure as a behavior analyst or assistant behavior analyst.

(2) Certifying entity—Behavior Analyst Certification Board (BACB)[®], 2888 Remington Green Lane, Suite C, Tallahassee, FL 32308 and approved by the committee.

(3) Committee—State Committee of Psychologists as established in section 337.050, RSMo.

(4) Division—Division of Professional Registration.

(5) Department—Department of Insurance, Financial Institutions and Professional Registration.

(6) Family Care Safety Registry—The registry established by the Missouri Department of Health and Senior Services pursuant to section 210.903, RSMo.

AUTHORITY: section 337.310, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost state agencies and political subdivisions approximately forty dollars (\$40) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars (\$500) in the aggregate.

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. No public hearing is scheduled.*

PUBLIC FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 1 - General Rules

Proposed Rule - 20 CSR 2063-1.010 Definitions

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$40

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Attorney General, Secretary of State and State Auditor.

Table 1 – Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure – 0%	Enforcement - 1%
Personal Service	\$0	\$9
Expense & Equipment	\$0	\$29
Transfers	\$0	\$2
TOTAL	\$0	\$40

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2– Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3– Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4– Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that no time involving the administration of the proposed rule will be spent on licensure efforts and 1% of the time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 1—General Rules**

PROPOSED RULE

20 CSR 2063-1.015 Fees

PURPOSE: This rule establishes and fixes the various fees and charges authorized by Chapter 337, RSMo.

(1) The following fees are established for the Behavior Analyst Advisory Board and are payable to the State Committee of Psychologists:

(A) Application Fee for Behavior Analyst	\$150
(B) Application Fee for Assistant Behavior Analyst	\$150
(C) Biennial Renewal Fee	\$150
(D) Delinquency Fee (in addition to the Renewal Fee)	\$ 50
(E) Inactive Renewal Fee	\$ 50
(F) Inactive Reactivation Fee (section 337.320.8, RSMo)	\$100
(G) Insufficient Check Fee	\$ 25

(2) All fees are nonrefundable.

(3) The provisions of this rule are declared severable. If any fee fixed by this rule is held invalid by a court of competent jurisdiction or by the Administrative Hearing Commission, the remaining provisions of this rule shall remain in full force and effect, unless otherwise determined by a court of competent jurisdiction or by the Administrative Hearing Commission.

AUTHORITY: sections 337.310, 337.315, 337.320, and 337.340, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost state agencies and political subdivisions approximately fifty-one dollars (\$51) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will cost private entities approximately fifteen thousand three hundred sixty-nine dollars and eighty-eight cents (\$15,369.88) annually with an annual increase of four hundred sixty-one dollars and ten cents (\$461.10); and fifteen thousand nine hundred fifty-five dollars and forty-eight cents (\$15,955.48) biennially with a biennial increase of four hundred seventy-eight dollars and thirty-three cents (\$478.33) for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.

PUBLIC FISCAL NOTE**I. RULE NUMBER****Title 20 - Department of Insurance, Financial Institutions and Professional Registration****Division 2063 - Behavior Analyst Advisory Board****Chapter 1 - General Rules****Proposed Rule - 20 CSR 2063-1.015 Fees**

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$51

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Attorney General, Secretary of State and State Auditor.

Table 1 – Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure – 2%	Enforcement - 0%
Personal Service	\$11	\$0
Expense & Equipment	\$38	\$0
Transfers	\$2	\$0
TOTAL	\$51	\$0

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2— Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3— Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4— Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that 2% of the total time involving the administration of the proposed rule will be spent on licensure efforts and no time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

PRIVATE FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 1 - General Rules

Proposed Rule - 20 CSR 2063-1.015 Fees

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

1st Year of Implementation of the Rule and Annually Thereafter

Estimate the number of entities by class which would likely be affected by the adoption of the proposed rule:	Classification by type of the business entities which would likely be affected:	Estimated cost of compliance with the rule by affected entities:
78	Behavior Analyst Applicants (Application Fee @ \$150)	\$11,700.00
24	Assistant Behavior Analyst Applicants (Application Fee @ \$150)	\$3,600.00
102	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Postage @ \$0.44)	\$44.88
1	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Insufficient Fee Service Charge @ \$25)	\$25.00
Estimated Cost of Compliance During the First Year of Implementation of the Rule		\$15,369.88 with an annual increase of \$461.10

2nd Year of Implementation of the Rule and Biennially Thereafter

Estimate the number of entities by class which would likely be affected by the adoption of the proposed rule:	Classification by type of the business entities which would likely be affected:	Estimated cost of compliance with the rule by affected entities:
105	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Biennial Renewal Fee @ \$150)	\$15,759.00
105	Behavior Analyst Applicants and Assistant (Postage @ \$0.44)	\$46.23
1	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Delinquency Fee @ \$50)	\$50.00
1	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Inactive Renewal Fee @ \$50)	\$50.00
1	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Inactive Reactivation Fee @ \$100)	\$39.25
Total Cost of Compliance Beginning the Second Year of Implementation and Continuing Biennially Thereafter		\$15,944.48 with a biennial increase of \$478.33

III. WORKSHEET

See table above.

IV. ASSUMPTION

1. The number of applicants estimated is based on the Behavior Analyst Certification Board (BACB) registry as of November 8, 2010. Only the number of individuals residing in Missouri were used in calculating this fiscal note. The committee does recognize that individuals residing in another state or become certified after the filing of this rule may apply for licensure; therefore, a three percent (3%) annual growth rate was estimated for this fiscal note.
2. The fees reported in this fiscal note are also reported in the fiscal notes accompanying 20 CSR 2063-2.005 and 20 CSR 2063-2.010 in accordance with the provisions of sections 536.200 and 536.205, RSMo. Applicants and licensees will only be required to pay the fee as required by the respective rule.
3. It is anticipated that the total cost will recur annually for the life of the rule, may vary with inflation and is expected to increase at the rate projected by the Legislative Oversight Committee.

NOTE: The committee is statutorily obligated to enforce and administer the provisions of section 337.300 through 337.345, RSMo. Pursuant to Section 337.320, RSMo, the committee shall by rule and regulation set the amount of fees authorized by section 337.300 through 337.345, RSMo so that the revenue produced is sufficient, but not excessive, to cover the cost and expense to the committee for administering the provisions of section 337.300 through 337.345, RSMo.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 1—General Rules**

PROPOSED RULE

20 CSR 2063-1.020 Policy for Handling Release of Public Records

PURPOSE: This rule sets forth the board's written policy in compliance with sections 610.010–610.030, RSMo, regarding the release of information on any meeting, record, or vote of the board.

(1) The Behavior Analyst Advisory Board is a public governmental body as defined in Chapter 610, RSMo, and adopts the following as its written policy for compliance with the provisions of that chapter. This policy is open to public inspection and implements the provisions of Chapter 610, RSMo, regarding the release of information of any meeting, record, or vote of the board which is not closed pursuant to the provisions of Chapter 610, RSMo.

(2) All public records of the Behavior Analyst Advisory Board shall be open for inspection and copying by any member of the general public during normal business hours (8:00 a.m. to 5:00 p.m., Monday through Friday, holidays excepted) upon a minimum of a three (3)-day notice and appointment except for those records closed pursuant to section 610.021, RSMo. All public meetings of the Behavior Analyst Advisory Board not closed pursuant to the provisions of section 610.021, RSMo, will be open to any member of the public.

(3) The Behavior Analyst Advisory Board establishes the executive director of the board or his/her authorized representative as the custodian of its records as required by section 610.023, RSMo. The executive director or his/her authorized representative is responsible for the maintenance of the board's records and is responsible for responding to requests for access to public records.

(4) Whenever a request for inspection of public records is made and the individual inspecting the records requests copies of the records, the board may charge a reasonable fee for the cost for inspecting and copying the records. The fees charged by the board shall be as follows:

(A) A fee for copying public records shall not exceed the actual cost of the document search and duplication;

(B) The board may require payment for the fees prior to making the copies; and

(C) Fees collected shall be remitted to the director of revenue for deposit to the credit of the State Committee of Psychologists' Fund.

(5) Whenever a request for access to public records is made and the custodian believes that access is not required under the provisions of Chapter 610, RSMo, the custodian shall consult with the Office of the Attorney General before making a determination whether to deny access to the records. In the event that contact by the custodian with the Office of the Attorney General is not practicable or is impossible, the custodian may make a decision whether to deny access. However, in those events, the custodian shall consult with the Office of the Attorney General concerning the decision within five (5) working days of the decision. Whenever the decision is made to deny access, the custodian will comply with the requirements in section 610.023, RSMo, concerning informing the individual requesting access to the records. Whenever the custodian denies access to the records, the custodian shall supply to members of the board copies of the written response conveying the denial to the requesting individual. At the next meeting of the board, the board shall either affirm the decision of the custodian or reverse the decision of the custodian.

an. In the event that the board decides to reverse the decision of the custodian, the board shall direct the custodian to so advise the person requesting access to the information and supply the access to the information during regular business hours at the convenience of the requesting party.

(6) The custodian shall maintain a file which will retain copies of all written requests for access to records and responses to these requests through the current audit period. The file shall be maintained as a public record of the board open for inspection by any member of the general public during regular business hours.

AUTHORITY: section 337.310, RSMo Supp. 2010 and sections 610.010–610.030, RSMo 2000 and Supp. 2010. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost public entities approximately forty dollars (\$40) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.

PUBLIC FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 1 - General Rules

Proposed Rule - 20 CSR 2063-1.020 Policy for Handling Release of Public Records

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$40

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Attorney General, Secretary of State and State Auditor.

Table 1 – Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure – 0%	Enforcement - 1%
Personal Service	\$0	\$9
Expense & Equipment	\$0	\$29
Transfers	\$0	\$2
TOTAL	\$0	\$40

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2— Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3— Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4— Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that no time involving the administration of the proposed rule will be spent on licensure efforts and 1% of the time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 2—Licensure Requirements**

PROPOSED RULE

20 CSR 2063-2.005 Application for Licensure

PURPOSE: This rule outlines the procedures to apply for licensure and temporary permits for behavior analysts and assistant behavior analysts.

(1) Applications for licensure pursuant to section 337.315, RSMo, shall be submitted on the form which may be obtained by contacting the Behavior Analyst Advisory Board.

(2) Behavior Analyst License.

(A) Applicants applying for licensure as a behavior analyst shall submit—

1. A completed application for licensure which is typewritten or printed in black ink, signed, and notarized;

2. The appropriate licensure fee pursuant to 20 CSR 2063-1.015;

3. One (1) recent photograph, pursuant to section 337.315.1, RSMo, of the applicant's head and shoulders (commonly known as passport style) that fairly depicts the applicant's appearance;

4. Proof of submission of fingerprints to the Missouri State Highway Patrol's approved vendor for both a Missouri State Highway Patrol and Federal Bureau of Investigation (FBI) fingerprint background check. Any fees due for fingerprint background checks shall be paid by the applicant;

5. Proof of having passed an examination and been certified as a board-certified behavior analyst from a certifying entity as defined pursuant to 20 CSR 2063-1.010;

6. Proof of active status as a board-certified behavior analyst; and

7. Verification of licensure in any other state in which the applicant holds a license as a behavior analyst. Verification of licensure must be received by the board directly from the issuing state agency.

(3) Assistant Behavior Analyst License.

(A) Applicants applying for licensure as an assistant behavior analyst shall submit—

1. A completed application for licensure which is typewritten or printed in black ink, signed, and notarized;

2. The appropriate licensure fee pursuant to 20 CSR 2063-1.015;

3. One (1) recent photograph, pursuant to section 337.315.1, RSMo, of the applicant's head and shoulders (commonly known as passport style) that fairly depicts the applicant's appearance;

4. Proof of submission of fingerprints to the Missouri State Highway Patrol's approved vendor for both a Missouri State Highway Patrol and Federal Bureau of Investigation (FBI) fingerprint background check. Any fees due for fingerprint background checks shall be paid by the applicant;

5. Proof of having passed an examination and been certified as a board-certified assistant behavior analyst from a certifying entity as defined pursuant to 20 CSR 2063-1.010;

6. Proof of active status as a board-certified assistant behavior analyst;

7. Verification of licensure in any other state in which the applicant holds a license as an assistant behavior analyst. Verification of licensure must be received by the board directly from the issuing state agency; and

8. Proof the applicant will be directly supervised by a licensed behavior analyst on a form provided by the board.

(4) Temporary License.

(A) Applicants who are licensed in another state requesting a temporary license shall—

1. Meet the respective requirements of section (2) or (3) of this rule;

2. Submit a copy of a valid license issued in another state; and

3. Have no disqualifying criminal history appear on the Family Care Safety Registry.

(B) Temporary licenses shall expire upon issuance of a permanent license or denial of the application but no later than ninety (90) days from issuance of the temporary license.

(C) Holders of a temporary license requesting an extension shall submit a written request to the committee. As provided by section 337.315.4, RSMo, the temporary license may be extended one (1) time by the committee.

(5) The applicant shall be informed in writing of the decision regarding the application for licensure.

(6) The board or committee may delegate the preliminary review of license applications to the executive director.

AUTHORITY: sections 337.315 and 337.345, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost state agencies and political subdivisions approximately three hundred six dollars (\$306) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will cost private entities approximately twenty-two thousand ninety-three dollars and thirty-eight cents (\$22,093.38) for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.

PUBLIC FISCAL NOTE**I. RULE NUMBER****Title 20 - Department of Insurance, Financial Institutions and Professional Registration****Division 2063 - Behavior Analyst Advisory Board****Chapter 2 - Licensure Requirements****Proposed Rule - 20 CSR 2063-2.005 Application for Licensure**

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$306

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Atto

Table 1 – Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure – 12%	Enforcement - 0%
Personal Service	\$66	\$0
Expense & Equipment	\$226	\$0
Transfers	\$14	\$0
TOTAL	\$306	\$0

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2— Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3— Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4— Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that 12% of the time involving the administration of the proposed rule will be spent on licensure efforts and no time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

PRIVATE FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 2 - Licensure Requirements

Proposed Rule - 20 CSR 2063-2.005 Application for Licensure

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

1st Year of Implementation of the Rule

Estimate the number of entities by class which would likely be affected by the adoption of the proposed rule:	Classification by type of the business entities which would likely be affected:	Estimated cost of compliance with the rule by affected entities:
78	Behavior Analyst Applicants (Application Fee @ \$150)	\$11,700.00
24	Assistant Behavior Analyst Applicants (Application Fee @ \$150)	\$3,600.00
102	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Postage @ \$0.44)	\$44.88
102	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Notary @ \$2.00)	\$204.00
102	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Photo @ \$7.00)	\$714.00
102	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Highway Patrol Fingerprinting Fees @ \$39.25)	\$4,003.50
102	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (L1 Finger Printing Fee @ \$12.95)	\$1,320.90
102	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Copies of Certification Card @ \$.05)	\$5.10
20	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Licensure Verification @ \$25)	\$500.00
20	Behavior Analyst Applicants and Assistant Behavior Analyst Applicants (Temporary License - Copy of Valid License from Another State @ \$.05)	\$1.00
Estimate Cost During the First Year of Implementation of the Rule and Annually Thereafter		\$22,093.38 with an annual growth rate of \$662.80

III. WORKSHEET

See table above.

IV. ASSUMPTION

1. The number of applicants estimated is based on the Behavior Analyst Certification Board (BACB) registry as of November 8, 2010. Only the number of individuals residing in Missouri were used in calculating this fiscal note. The committee does recognize that individuals residing in another state and other individuals who become certified after the filing of this rule may apply for licensure; therefore, a three percent (3%) annual growth rate was calculated in this fiscal note. In the future, the office will assess fees based on actual costs and actual number of licensees.
2. The application fees reported in this fiscal note are also reported in the fiscal note accompanying 20 CSR 2063-1.015 in accordance with the provisions of sections 536.200 and 536.205, RSMo. Applicants will only be required to submit the fee with the application as required by this rule.
3. Applicants are required to be certified with The Behavior Analyst Certification Board (BACB), which is the certifying entity currently recognized by the board. In order to become certified an applicant would have to meet the following qualifications and pay all fees directly to BACB or other required entities associated with certification, education, training and examination. Those fees are not represented in this fiscal note due to the variance in direct and indirect costs associated with travel, education expenses and reimbursement, etc. which could vary from applicant to applicant.

Behavior Analysts:

- Bachelor's, master's degree, or doctoral degree;
- Specific number of supervised hours depending upon the degree obtained; and
- Completion of an BACB approved examination;

Assistant Behavior Analysts:

- Bachelor's degree;
- 1000 hours of supervised experience; and
- Completion of an BACB approved examination;

4. Proof of current BACB certification is an essential component of the requirements for licensure. The applicant will be required to provide a copy of their current certification card. The office will also require verification of the certification directly with BACB. Although the BACB is authorized to charge a fee for verifications, they do not currently charge a fee for e-mail verifications confirming certification to a state agency. If paper or fax verifications are required a \$25.00 fee will be assessed for each verification. For the purposes of this fiscal note, the committee is going to assume all verification will be send via email to the BACB and will not be any additional expense incurred by the applicant.
5. It is anticipated that the total cost will recur annually for the life of the rule, may vary with inflation and is expected to increase at the rate projected by the Legislative Oversight Committee.

NOTE: The committee is statutorily obligated to enforce and administer the provisions of section 337.300 through 337.345, RSMo. Pursuant to Section 337.320, RSMo, the committee shall by rule and regulation set the amount of fees authorized by section 337.300 through 337.345, RSMo so that the revenue produced is sufficient, but not excessive, to cover the cost and expense to the committee for administering the provisions of section 337.300 through 337.345, RSMo.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 2—Licensure Requirements**

PROPOSED RULE

**20 CSR 2063-2.010 Renewal of License, Inactive License, and
Reactivation of License**

PURPOSE: This rule establishes the obligation of licensees for renewal of their licenses.

(1) Renewal of License.

(A) Failure of a licensee to receive the notice and application to renew the license shall not excuse the licensee from the requirement of section 337.320, RSMo, to renew the license.

(B) Any licensee who fails to renew the license within the sixty (60)-day period set forth in section 337.320.3., RSMo, shall not perform any act for which a license is required.

(C) Any licensed behavior analyst who fails to renew his/her license by October 31 of each odd-numbered year or any assistant behavior analyst who fails to renew his/her license by November 30 of each odd-numbered year and, within two (2) years of the registration renewal date, wishes to restore his/her license, shall—

1. Submit a completed application;
2. Pay the renewal fee and delinquent fee; and
3. Submit proof of active certification and fulfillment of all requirements for renewal and recertification with the certifying entity as defined pursuant to 20 CSR 2063-1.010.

(2) Inactive License.

(A) Licensees who request to be classified as inactive pursuant to section 337.320.7, RSMo, shall—

1. Submit a completed application on a form provided by the committee; and
2. Pay the inactive renewal fee as provided in 20 CSR 2063-1.015.

(B) Holders of an inactive license need not complete the continuing education requirement pursuant to section 337.320.7, RSMo.

(C) Holders of an Inactive License.

1. Failure of a licensee to receive the notice and application to renew the inactive license shall not excuse the licensee from the requirement of section 337.315, RSMo, to renew the license.

2. Any licensee who fails to renew the inactive license within the sixty (60)-day period set forth in section 337.320.3., RSMo, cannot practice, and the license shall lapse.

(3) Reactivation of License.

(A) Individuals who request to reactivate the inactive license shall—

1. Submit a complete application on a form provided by the committee;
2. Pay the reactivation fee as provided in 20 CSR 2063-1.015; and
3. Submit proof of current certification from a certifying body as established in 20 CSR 2063-1.010.

AUTHORITY: sections 337.030 and 337.320, RSMo Supp. 2010. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost public entities approximately two hundred four dollars (\$204) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will cost private entities approximately sixteen thousand thirty dollars and twenty-six cents (\$16,030.26) biennially with a biennial growth rate of four hundred eighty dollars and ninety-one cents (\$480.91) for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the *Missouri Register*. No public hearing is scheduled.

PUBLIC FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 2 - Licensure Requirements

Proposed Rule - 20 CSR 2063-2.010 Renewal of License, Inactive License and Reactivation of License

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$204

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Atto

Table 1 – Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure – 8%	Enforcement - 0%
Personal Service	\$44	\$0
Expense & Equipment	\$151	\$0
Transfers	\$9	\$0
TOTAL	\$204	\$0

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2— Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3— Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4— Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that 8% of the time involving the administration of the proposed rule will be spent on licensure efforts and no time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

PRIVATE FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 2 - Licensure Requirements

Proposed Rule - 20 CSR 2063-2.010 Renewal of License, Inactive License, and Reactivation

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Estimate the number of entities by class which would likely be affected by the adoption of the proposed rule:	Classification by type of the business entities which would likely be affected:	Estimated cost of compliance with the rule by affected entities:
106	Licensed Behavior Analysts and Licensed Assistant Behavior Analysts (Biennial Renewal Fee @ \$150)	\$15,900.00
106	Licensed Behavior Analysts and Licensed Assistant Behavior Analysts (Postage @ \$0.44)	\$46.64
106	Licensed Behavior Analysts and Licensed Assistant Behavior Analysts (Copies of Certification Card @ \$.05)	\$5.30
2	Licensed Behavior Analysts and Licensed Assistant Behavior Analysts (Inactive Renewal Fee @ \$25)	\$50.00
2	Licensed Behavior Analysts and Licensed Assistant Behavior Analysts (Postage @ \$0.44)	\$0.88
1	Licensed Behavior Analysts and Licensed Assistant Behavior Analysts (Reactivation Fee @ \$25)	\$25.00
1	Licensed Behavior Analysts and Licensed Assistant Behavior Analysts (Notary @ \$2.00)	\$2.00
1	Licensed Behavior Analysts and Licensed Assistant Behavior Analysts (Postage @ \$0.44)	\$0.44
Estimate Biennial Cost for the Life of the Rule		\$16,030.26 with a biennial growth rate of \$480.91

III. WORKSHEET

See table above.

IV. ASSUMPTION

1. The number of licensees renewing their biennial license is based on the estimated number of licensees and anticipated growth rate reported in the fiscal note accompanying 20 CSR 2063-2.005.
2. The renewal, inactive and reactivation fees reported in this fiscal note are also reported in the fiscal note accompanying 20 CSR 2063-1.015 in accordance with the provisions of sections 536.200 and 536.205, RSMo. Licensees will be required to pay only the fee with the renewal, inactive or reactivation application as required by this rule.
3. Licensees are required to be maintain current certification with the Behavior Analyst Certification Board (BACB), which is the certifying entity recognized by the board. In order to become certified an applicant would have to meet the following qualifications and pay all fees directly to BACB or other required entities associated with certification, education, training and examination. Those fees are not represented in this fiscal note due to the variance in direct and indirect costs associated with travel, education expenses and reimbursement, etc. which could vary from applicant to applicant.
4. Proof of current BACB certification is an essential component of the requirements for licensure renewal. The licensee will be required to provide a copy of their current certification card. The office will also require verification of the certification directly with BACB. Although the BACB is authorized to charge a fee for verifications, they do not currently charge a fee for e-mail verifications confirming certification to a state agency. If paper or fax verifications are required a \$25.00 fee will be assessed for each verification. For the purposes of this fiscal note, the committee is going to assume all verification will be send via email to the BACB and will not be any additional expense incurred by the applicant.
5. It is anticipated that the total cost will recur annually for the life of the rule, may vary with inflation and is expected to increase at the rate projected by the Legislative Oversight

NOTE: The committee is statutorily obligated to enforce and administer the provisions of section 337.300 through 337.345, RSMo. Pursuant to Section 337.320, RSMo, the committee shall by rule and regulation set the amount of fees authorized by section 337.300 through 337.345, RSMo so that the revenue produced is sufficient, but not excessive, to cover the cost and expense to the committee for administering the provisions of section 337.300 through 337.345, RSMo.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 2—Licensure Requirements**

PROPOSED RULE

20 CSR 2063-2.015 Notification of Change of Address

PURPOSE: This rule establishes the obligation of licensees to inform the Behavior Analyst Advisory Board of their changes of address.

(1) Within thirty (30) days of the effective date of the change, a licensee must inform the board of all changes in the mailing address as it appears on the licensee's license by contacting the Behavior Analyst Advisory Board in writing.

AUTHORITY: section 337.310, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost state agencies and political subdivisions approximately fifty-one dollars (\$51) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars (\$500) in the aggregate.

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. No public hearing is scheduled.*

PUBLIC FISCAL NOTE**I. RULE NUMBER****Title 20 - Department of Insurance, Financial Institutions and Professional Registration****Division 2063 - Behavior Analyst Advisory Board****Chapter 2 - Licensure Requirements****Proposed Rule - 20 CSR 2063-2.015 Notification of Change of Address**

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$51

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Atto

Table 1 – Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure – 2%	Enforcement - 0%
Personal Service	\$11	\$0
Expense & Equipment	\$38	\$0
Transfers	\$2	\$0
TOTAL	\$51	\$0

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2— Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3— Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4— Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that 2% of the time involving the administration of the proposed rule will be spent on licensure efforts and no time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 3—Certifying Entities**

PROPOSED RULE

20 CSR 2063-3.005 Certifying Entities

PURPOSE: This rule establishes the certifying entities acceptable to the board.

(1) A certifying entity shall be accredited to certify practitioners of applied behavior analysis by a nationally-recognized agency including but not limited to:

- (A) National Commission for Certifying Agencies; or
- (B) American National Standards Institute.

AUTHORITY: section 337.310.1, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost state agencies and political subdivisions approximately twenty-five dollars (\$25) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars (\$500) in the aggregate.

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. No public hearing is scheduled.*

PUBLIC FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 3 - Certifying Entities

Proposed Rule - 20 CSR 2063-3.005 Certifying Entities

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$25

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Atto

Table 1 – Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure – 1%	Enforcement - 0%
Personal Service	\$5	\$0
Expense & Equipment	\$19	\$0
Transfers	\$1	\$0
TOTAL	\$25	\$0

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2— Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3— Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4— Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that 1% of the time involving the administration of the proposed rule will be spent on licensure efforts and no time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 4—Education and Training Requirements**

PROPOSED RULE

20 CSR 2063-4.005 Education and Training Requirements

PURPOSE: This rule establishes the education and training requirements for licensed behavior analysts and licensed assistant behavior analysts pursuant to section 337.310, RSMo.

(1) Applicants for licensure as a behavior analyst or assistant behavior analyst shall meet the education and training requirements and supervised clinical practicum experience required for eligibility to sit for the certification examination for their respective level offered by the certifying entity as defined in 20 CSR 2063-1.010.

AUTHORITY: sections 337.310.1(3), RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost state agencies and political subdivisions approximately one hundred twenty-seven dollars (\$127) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars (\$500) in the aggregate.

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. No public hearing is scheduled.*

PUBLIC FISCAL NOTE**I. RULE NUMBER****Title 20 - Department of Insurance, Financial Institutions and Professional Registration****Division 2063 - Behavior Analyst Advisory Board****Chapter 4 - Education and Training Requirements****Proposed Rule - 20 CSR 2063-4.005 Education Requirements**

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$127

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Atto

Table 1 – Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure – 5%	Enforcement - 0%
Personal Service	\$27	\$0
Expense & Equipment	\$94	\$0
Transfers	\$6	\$0
TOTAL	\$127	\$0

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2— Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3— Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4— Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that 5% of the time involving the administration of the proposed rule will be spent on licensure efforts and no time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 4—Education and Training Requirements**

PROPOSED RULE

20 CSR 2063-4.010 Continuing Education Requirements

PURPOSE: This rule establishes continuing education requirements for licensed behavior analysts and licensed assistant behavior analysts.

(1) Any licensee applying for the renewal of a behavior analyst license or assistant behavior analyst license shall meet the continuing education requirements for his/her respective level as required by the certifying entity, as defined in 20 CSR 2063-1.010 in order to maintain active certification.

AUTHORITY: section 337.310.2, RSMo Supp. 2010. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost public entities approximately one hundred twenty-seven dollars (\$127) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will cost private entities approximately nine hundred sixty dollars (\$960) triennially with a triennial growth rate of one thousand one hundred seventy-nine dollars (\$1,179) for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. No public hearing is scheduled.

PUBLIC FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 4 - Education and Training Requirements

Proposed Rule - 20 CSR 2063-4.010 Continuing Education Requirements

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$127

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Atto

Table 1 -- Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure - 5%	Enforcement - 0%
Personal Service	\$27	\$0
Expense & Equipment	\$94	\$0
Transfers	\$6	\$0
TOTAL	\$127	\$0

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2— Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3— Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4— Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that 5% of the time involving the administration of the proposed rule will be spent on licensure efforts and no time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

PRIVATE FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 4 - Education and Training Requirements

Proposed Rule - 20 CSR 2063-4.010 Continuing Education Requirements

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Estimate the number of entities by class which would likely be affected by the adoption of the proposed rule:	Classification by type of the business entities which would likely be affected:	Estimated cost of compliance with the rule by affected entities:
109	Licensed Behavior Analysts and Licensed Assistant Behavior Analysts (Continuing Education 36 units/every 3 years @ \$10 per unit)	\$39,305
	Estimate Triennial Cost for the Life of the Rule	\$39,305 with a triennial growth rate of \$1,179

III. WORKSHEET

See table above.

IV. ASSUMPTION

1. The number of licensees renewing their biennial license is based on the estimated number of licensees and anticipated growth rate reported in the fiscal note accompanying 20 CSR 2063-2.005.
2. Licensed behavior analysts and licensed assistant behavior analyst are required to meet the continuing education requirement for their respective levels as required by the Behavior Analyst Certification Board (BACB) as a requirement for state licensure. BACB requires 36 units of continuing education every three years. The committee estimates each unit will cost licensees approximately \$10 per unit. However, licenses may have the opportunity to attend some seminar, conference or workshops at no cost. This fiscal note does not include estimates for travel, meal reimbursement or lodging due to the variance in expenses, the geographic location of licensees and the potential availability of online courses.
3. It is anticipated that the total cost will recur annually for the life of the rule, may vary with inflation and is expected to increase at the rate projected by the Legislative Oversight

NOTE: The committee is statutorily obligated to enforce and administer the provisions of section 337.300 through 337.345, RSMo. Pursuant to Section 337.320, RSMo, the committee shall by rule and regulation set the amount of fees authorized by section 337.300 through 337.345, RSMo so that the revenue produced is sufficient, but not excessive, to cover the cost and expense to the committee for administering the provisions of section 337.300 through 337.345, RSMo.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2063—Behavior Analyst Advisory Board
Chapter 5—Supervision**

PROPOSED RULE

20 CSR 2063-5.005 Supervision of Assistant Behavior Analysts

PURPOSE: This rule establishes the characteristics of supervision for assistant behavior analysts.

(1) An assistant behavior analyst shall assist a behavior analyst in the delivery of applied behavior analysis in compliance with all state and federal statutes, regulations, and rules.

(2) The assistant behavior analyst may only perform services under the direct supervision of a behavior analyst as set forth in this rule.

(A) The manner of supervision shall depend on the treatment setting, patient/client caseload, and the competency of the assistant behavior analyst as determined by the supervising behavior analyst. At a minimum, supervision shall include consultation of the assistant behavior analyst with the supervising behavior analyst prior to the initiation of any patient's/client's treatment plan and modification of treatment plan.

(B) More frequent face-to-face supervision may be necessary as determined by the behavior analyst or assistant behavior analyst dependent on the level of expertise displayed by the assistant behavior analyst, the practice setting, and/or the complexity of the patient/client caseload.

(C) Supervision shall be an interactive process between the behavior analyst and assistant behavior analyst. It shall be more than peer review or co-signature. The interactive process shall include but is not limited to the patient/client assessment, reassessment, treatment plan, intervention, discontinuation of intervention, and/or treatment plan.

(D) The supervising behavior analyst or the supervisor's designee must be available for immediate consultation with the assistant behavior analyst. The supervisor need not be physically present or on the premises at all times.

(3) The supervising behavior analyst has the overall responsibility for providing the necessary supervision to protect the health and welfare of the patient/client receiving treatment from an assistant behavior analyst. The supervising behavior analyst shall—

(A) Be licensed by the board as a behavior analyst who is certified by the certifying entity;

(B) As of January 1, 2012, have a minimum of one (1)-year experience as a licensed behavior analyst. Prior to January 1, 2012, the supervising behavior analyst shall have a minimum of one (1) year of certification as a certified behavior analyst and shall obtain licensure prior to January 1, 2012;

(C) Not be under restriction or discipline from any licensing board or jurisdiction;

(D) Not have more than ten (10) full-time-equivalent (FTE) assistant behavior analysts under his/her supervision at one (1) time without prior approval by the board;

(E) Provide at least two (2) hours of face-to-face, direct supervision for every eighty (80) hours worked. Supervision in a group may be for not more than one (1) hour for each one hundred sixty (160) hours worked;

(F) Be responsible for all referrals of the patient/client;

(G) Be responsible for completing the patient's evaluation/assessment. The assistant behavior analyst may contribute to the screening and/or evaluation process by gathering data, administering standardized tests, and reporting observations. The assistant behavior analyst

may not evaluate independently or initiate treatment before the supervising behavior analyst's evaluation/assessment;

(H) Be responsible for developing and modifying the patient's treatment plan. The treatment plan must include goals, interventions, frequency, and duration of treatment. The assistant behavior analyst may contribute to the preparation, implementation, and documentation of the treatment plan. The supervising behavior analyst shall be responsible for the outcome of the treatment plan and assigning of appropriate intervention plans to the assistant behavior analyst within the competency level of the assistant behavior analyst;

(I) Be responsible for developing the patient's discharge plan. The assistant behavior analyst may contribute to the preparation, implementation, and documentation of the discharge plan. The supervising behavior analyst shall be responsible for the outcome of the discharge plan and assigning of appropriate tasks to the assistant behavior analyst within the competency level of the assistant behavior analyst;

(J) Ensure that all patient/client documentation becomes a part of the permanent record; and

(K) Conduct at least one (1) on-site observation per client per month.

(4) The supervising behavior analyst has the overall responsibility for providing the necessary supervision to protect the health and welfare of the patient/client receiving treatment from an assistant behavior analyst. However, this does not absolve the assistant behavior analyst from his/her professional responsibilities. The assistant behavior analyst shall exercise sound judgment and provide adequate care in the performance of duties. The assistant behavior analyst shall—

(A) Not initiate any patient/client treatment program or modification of said program until the behavior analyst has evaluated, established a treatment plan, and consulted with the behavior analyst;

(B) Not perform an evaluation/assessment, but may contribute to the screening and/or evaluation process by gathering data, administering standardized tests, and reporting observations;

(C) Not analyze or interpret evaluation data;

(D) Track the need for reassessment and report changes in status that might warrant reassessment or referral;

(E) Immediately suspend any treatment intervention that appears harmful to the patient/client and immediately notify the behavior analyst; and

(F) Ensure that all patient/client documentation prepared by the assistant behavior analyst becomes a part of the permanent record.

(5) The supervisor shall ensure that the assistant behavior analyst provides applied behavior analysis as defined in section 337.300, RSMo, appropriate to and consistent with his/her education, training, and experience.

AUTHORITY: section 337.310.1, RSMo Supp. 2010. Emergency rule filed Nov. 30, 2010, effective Dec. 10, 2010, expires June 7, 2011. Original rule filed Nov. 30, 2010.

PUBLIC COST: This proposed rule will cost state agencies and political subdivisions approximately five hundred ninety-eight dollars (\$598) annually for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

PRIVATE COST: This proposed rule will cost private entities from nine hundred sixty-one dollars (\$961) to an undeterminable amount for the life of the rule. It is anticipated that the costs will recur for the life of the rule, may vary with inflation, and are expected to increase at the rate projected by the Legislative Oversight Committee.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in

*support of or in opposition to this proposed rule with the State Committee of Psychologists, PO Box 1335, Jefferson City, MO 65102, by facsimile at 573-526-0661, or via email at scop@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. No public hearing is scheduled.*

PUBLIC FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 5 - Supervision

Proposed Rule - 20 CSR 2063-5.005 Supervision of Assistant Behavior Analysts

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Annual Cost of Compliance
Behavior Analyst Advisory Board	\$598

III. WORKSHEET

The costs for this rule are detailed in the table below and are based on the following assumptions:

- 1) Personal service costs are incurred for staff time to prepare for board meetings, process per diem requests and respond to requests for public information; and board member per diem.
- 2) Expense and equipment costs are incurred for board expenses for preparing board agendas, request for public information, and for board member travel expenses to attend the meeting.
- 3) Transfers are costs incurred for board and staff support provided by the Division of Professional Registration (also includes data processing, cash receiving room and MIS) and costs incurred for services provided by agencies such as the Office of the Atto

Table 1 – Estimated Cost of Compliance by Category of Allocation

Category of Allocation	Licensure – 0%	Enforcement - 15%
Personal Service	\$0	\$128
Expense & Equipment	\$0	\$442
Transfers	\$0	\$27
TOTAL	\$0	\$598

IV. ASSUMPTIONS

In developing this fiscal note, the total public entity costs of the Behavior Analyst Advisory Board were determined by using allotment figures for personal service, expense and equipment, and transfers based on the number of individuals with Missouri addresses certified by the Behavior Analyst Certification Board (BACB)®. In the future, the office will base fiscal estimates on actual costs and actual number of licensees. These annual costs will recur each year for the life of the rule; may vary with inflation; and are expected to increase annually at the rate projected by the Legislative Oversight Committee.

For the purpose of calculating the fiscal impact of the administrative rules, two major categories of board activity were identified: licensure and enforcement. The board estimates 39% of personal service, expense & equipment and transfer costs will be dedicated to the licensure effort and an estimated 61% of personal service, expense & equipment and transfer costs will be dedicated to the enforcement effort. Transfer costs also include rent and utilities. (See Table 2, 3 & 4)

Table 2— Allocation of Personal Service Dollars

Allotment	Percentage & Category	Dollar Amount
\$1,400	39% Licensure	\$546
\$1,400	61% Enforcement	\$854

Table 3— Allocation of Expense & Equipment

Allotment	Percentage & Category	Dollar Amount
\$4,831	39% Licensure	\$1,884
\$4,831	61% Enforcement	\$2,947

Table 4— Allocation of Transfer Dollars

Allotment	Percentage & Category	Dollar Amount
\$300	39% Licensure	\$117
\$300	61% Enforcement	\$183

In allocating costs, this proposed rule was reviewed to determine if the rule contained attributes of licensure and/or enforcement. It is estimated that no time involving the administration of the proposed rule will be spent on licensure efforts and 15% of the time will spent on enforcement efforts. These percentages have been applied to personal service, expense & equipment and transfer dollars. (See Table 1)

PRIVATE FISCAL NOTE

I. RULE NUMBER

Title 20 - Department of Insurance, Financial Institutions and Professional Registration

Division 2063 - Behavior Analyst Advisory Board

Chapter 5 - Supervision

Proposed Rule - 20 CSR 2063-5.005 Supervision of Assistant Behavior Analysts

Prepared November 22, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Estimate the number of entities by class which would likely be affected by the adoption of the proposed rule:	Classification by type of the business entities which would likely be affected:	Estimated cost of compliance with the rule by affected entities:
31	Licensed Behavior Analysts, Licensed Assistant Behavior Analysts or Their Employers (Assessment Tools/Sets @ \$64.95 to \$935.00)	\$961 to \$28,985
31	Licensed Behavior Analysts, Licensed Assistant Behavior Analysts or Their Employers (Travel Expenses, Office Supplies, Equipment and Other Materials - Undeterminable)	Undeterminable
Estimate Annual Cost for the Life of the Rule		\$961 to an Undeterminable Amount

III. WORKSHEET

See table above.

IV. ASSUMPTION

1. The number of behavior analyst estimated is based on the Behavior Analyst Certification Board (BACB) registry as of November 8, 2010. Only the number of individuals residing in Missouri communicating to the BACB their willingness to supervise assistant behavior analysts were used in calculating this fiscal note. The committee does recognize that individuals residing in another state and other individuals who become certified after the filing of this rule may apply wish to supervise assistant behavior analysts; therefore, a one percent (1%) annual growth rate was calculated in this fiscal note. In the future, the office will assess fees based on actual costs and actual number of licensees.
2. Due to variations in business practices, complexity of the patient/client, travel expenses and purchases prices related to the businesses expenses that may be incurred by the licensee or their employer, the following areas were not specifically calculated in this fiscal note, but should be taken into consideration related to private entities expenses.

- Licensed behavior analysts and assistant behavior analysts generally use test and data collection tools, such as timers and golf clickers, in the course of their practice. These tools are items are a one time expense that can be shared and may not require duplicate purchases.
 - The manner of supervision is contingent upon the treatment setting, patient/client caseload, and the competency of the assistant behavior analyst as determined by the supervising behavior analyst. Supervision can be accomplished through face-to-face observations, video recordings, vocal or written communications, etc.
 - The licensee or their employer may provide general office supplies and equipment such as a pens, pencils, stickers, paper, computer, colored printer, binder tabs, label maker, laminator, digital camera, video camera, flash cards, etc.
 - In the normal course of business the licensee or their employer may incur expenses for trade journals, skill books, crisis training, cardio-pulmonary resuscitation (CPR) or other healthcare training.
 - The licensee or their employer may provide materials used for assessments, as well as expanding expressive and receptive language, matching, categorizing and generalizing. These materials may include interactive toys, books, visual aides, board makers, digital reminders,
3. Some of the items reflected above may be a one time purchase or may result in a reoccurring purchase for the behavior analysts, assistant behavior analysts or their employer.
 4. The expenses described above do not result in any revenue to the board or committee.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2150—State Board of Registration for the
Healing Arts
Chapter 2—Licensing of Physicians and Surgeons**

PROPOSED AMENDMENT

20 CSR 2150-2.080 Fees. The board is proposing to amend subsection (1)(J).

PURPOSE: The State Board of Registration for the Healing Arts is statutorily obligated to enforce and administer the provisions of sections 334.002–334.749, RSMo. Pursuant to section 334.090, RSMo, the board shall by rule and regulation set the amount of fees authorized by sections 334.002–334.749, RSMo, so that the revenue produced is sufficient, but not excessive, to cover the cost and expense to the board for administering the provisions of sections 334.002–334.749, RSMo. Based on the board's five (5)-year projections, the board finds it necessary to reduce fees.

(1) The following fees are established by the State Board of Registration for the Healing Arts:

- | | |
|--|----------------------|
| (J) Renewal of Certificate of Registration Fee | [\$135] |
| 1. Effective November 29, 2010, to February 15, 2011 | \$ 55 |
| 2. Effective February 16, 2011 | \$135 |

AUTHORITY: sections 334.090.2 and 334.125, RSMo 2000. This rule originally filed as 4 CSR 150-2.080. Emergency rule filed July 1, 1981, effective July 11, 1981, expired Nov. 8, 1981. Original rule filed July 14, 1981, effective Oct. 11, 1981. For intervening history, please consult the Code of State Regulations. Emergency amendment filed Nov. 19, 2010, effective Nov. 29, 2010, expires May 27, 2011. Amended: Filed Nov 19, 2010.

PUBLIC COST: This proposed amendment will result in a decrease of revenue for the State Board of Registration for the Healing Arts of approximately \$1,695,440 beginning November 29, 2010, and continuing through February 15, 2011. Beginning February 16, 2011, the board's revenue will increase by approximately \$1,695,440 annually for the life of the rule.

PRIVATE COST: This proposed amendment will save private entities approximately \$1,695,440 beginning November 29, 2010, and continuing through February 15, 2011. Beginning February 16, 2011, this amendment will cost private entities approximately \$1,695,440 annually for the life of the rule.

NOTICE TO SUBMIT COMMENTS: *Anyone may file a statement in support of or in opposition to this proposed amendment with the Board of Registration for the Healing Arts, PO Box 4, Jefferson City, MO 65102, by facsimile at 573-751-3166, or via email at healingarts@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.*

PUBLIC FISCAL NOTE**I. RULE NUMBER****Title 20 -Department of Insurance, Financial Institutions and Professional Registration****Division 2150 - State Board of Registration for the Healing Arts****Chapter 2 - Licensing of Physicians and Surgeons****Proposed Amendment to 20 CSR 2150-2.080 - Fees**

Prepared September 20, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT**Estimated Fiscal Impact Between November 29, 2010 and February 15, 2011**

Fiscal Impact Between November 29, 2010 and Feb	Estimated Loss of Revenue	
State Board of Registration for the Healing Arts		(\$1,695,440)
	Total Loss of Revenue Between November 29, 2010 and February 16, 2011	(\$1,695,440)

Estimated Fiscal Impact Effective February 16, 2011

Affected Agency or Political Subdivision	Estimated Increase of Revenue	
State Board of Registration for the Healing Arts		\$1,695,440
	Total Increase of Revenue Effective February 16, 2011 and Annually Thereafter for the Life of the Rule	\$1,695,440

III. WORKSHEET

See Private Entity Fiscal Note

IV. ASSUMPTION

1. The total loss of revenue is based on the cost savings reflected in the Private Entity Fiscal Note filed with this rule.
2. The board utilizes a rolling five year financial analysis process to evaluate its fund balance, establish fee structure and assess budgetary needs. The five year analysis is based on the projected revenue, expenses, and number of licensees. Based on the board's recent five year analysis, the board voted on an \$80 reduction in M.D. and D.O. renewal fees beginning on November 29, 2010 and continuing through February 15, 2011.

PRIVATE FISCAL NOTE

I. RULE NUMBER

Title 20 -Department of Insurance, Financial Institutions and Professional Registration

Division 2150 - State Board of Registration for the Healing Arts

Chapter 2 - Licensing of Physicians and Surgeons

Proposed Amendment to 20 CSR 2150-2.080 - Fees

Prepared September 20, 2010 by the Division of Professional Registration

II. SUMMARY OF FISCAL IMPACT

Estimated Fiscal Impact Between November 29, 2010 and February 15, 2011

Estimate the number of entities by class which would likely be affected by the adoption of the proposed rule:	Classification by type of the business entities which would likely be affected:	Estimated cost of compliance with the rule by affected entities:
21,193	M.D.'s and D.O.'s Eligible for Renewal (Renewal Fee Decrease @ \$80)	1,695,440
	Estimated Cost Savings for November 29, 2010 to February 15, 2011	1,695,440

Estimated Fiscal Impact Effective February 16, 2011

Estimate the number of entities by class which would likely be affected by the adoption of the proposed rule:	Classification by type of the business entities which would likely be affected:	Estimated cost of compliance with the rule by affected entities:
21,193	M.D.'s and D.O.'s Eligible for Renewal (Renewal Fee Increase @ \$80)	(1,695,440)
	Estimated Cost of Compliance Effective February 16, 2011 and Annually for the Life of the Rule	(1,695,440)

III. WORKSHEET

See Table Above

IV. ASSUMPTION

1. The above figures are based on FY09-FY10 actuals.
2. It is anticipated that the total fiscal savings will occur during 2011, may vary with inflation and is expected to increase at the rate projected by the Legislative Oversight Committee.

This section will contain the final text of the rules proposed by agencies. The order of rulemaking is required to contain a citation to the legal authority upon which the order or rulemaking is based; reference to the date and page or pages where the notice of proposed rulemaking was published in the *Missouri Register*; an explanation of any change between the text of the rule as contained in the notice of proposed rulemaking and the text of the rule as finally adopted, together with the reason for any such change; and the full text of any section or subsection of the rule as adopted which has been changed from that contained in the notice of proposed rulemaking. The effective date of the rule shall be not less than thirty (30) days after the date of publication of the revision to the *Code of State Regulations*.

The agency is also required to make a brief summary of the general nature and extent of comments submitted in support of or opposition to the proposed rule and a concise summary of the testimony presented at the hearing, if any, held in connection with the rulemaking, together with a concise summary of the agency's findings with respect to the merits of any such testimony or comments which are opposed in whole or in part to the proposed rule. The ninety (90)-day period during which an agency shall file its order of rulemaking for publication in the *Missouri Register* begins either: 1) after the hearing on the proposed rulemaking is held; or 2) at the end of the time for submission of comments to the agency. During this period, the agency shall file with the secretary of state the order of rulemaking, either putting the proposed rule into effect, with or without further changes, or withdrawing the proposed rule.

Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 5—Air Quality Standards and Air Pollution
Control Rules Specific to the St. Louis Metropolitan
Area

ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2000, the commission amends a rule as follows:

10 CSR 10-5.480 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 2, 2010 (35 MoReg 1080-1091). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received eleven (11) comments from the U.S. Environmental Protection Agency (EPA).

COMMENT #1: EPA recommended that the language mentioning East-West Gateway Council of Governments (EWGCOG) as the St. Louis Metropolitan Planning Organization (MPO) be removed from the applicability section because the rule is intended to cover all transportation-related criteria pollutant maintenance and nonattainment areas within the St. Louis metropolitan area. These areas are not necessarily dependent on the area of jurisdiction of the MPO.

RESPONSE AND EXPLANATION OF CHANGE: As EPA noted, the applicability section is not the appropriate place to mention the assignment of EWGCOG as the region's MPO. As a result of this comment, subsection (1)(A) is being revised to remove the phrase as suggested. Also, during review of this comment, an incorrect reference to a rule subsection was noted and deleted from subparagraph (3)(B)2.C.

COMMENT #2: EPA commented that there may be other provisions that are inconsistent with the geographic scope of this rule. For example, part (3)(B)3.A.(II) specifies that state transportation agencies will be responsible for initiating conformity determination for plans, programs, or projects external to an MPO boundary including isolated rural nonattainment and maintenance areas. EPA suggested that Missouri consider tailoring such language to meet the geographic scope of this rule.

RESPONSE: This rule is intended to be an outline of the transportation conformity process, particularly for the St. Louis metropolitan area. Subsection (1)(C) states that conformity determinations are governed by the criteria and procedures outlined in this rule as well as any applicable portions of the federal conformity regulations not addressed by the rule. For convenience, the rule lists the roles and duties for participating agencies as required by federal Code. The rule discusses the roles and responsibilities of federal air and transportation agencies, as well as Illinois agencies, which are obviously outside the jurisdiction of this chapter but are clearly necessary to outline the transportation conformity interagency consultation process. In addition to the language noted in part (3)(B)3.A.(II), subparagraph (3)(B)2.D. lists the responsibilities of the state transportation agencies, which include conformity determinations for areas outside the MPO boundary. The unamended rule had similar language. These reference statements in no way intend to overturn the geographic scope of the rule. If Missouri were to have an isolated rural nonattainment area for a transportation-related pollutant in the future, the rule would be reviewed to determine if amendments to this rule or a replacement statewide rule would be necessary. No changes have been made to the rule text as a result of this comment.

COMMENT #3: EPA commented that Missouri should review the list of participating agencies in subsection (2)(B) to ensure the list is current and reflects the process in place. If the participant list is updated, references to the list and the number of participants may also need to be changed, such as language in paragraph (2)(D)2.

RESPONSE AND EXPLANATION OF CHANGE: The list of interagency consultation participants has been reviewed by the interagency consultation group and determined to be current. The list reflects the process in place. As a result of this comment, subsection (2)(D) of the proposed rule is being revised to clarify how additional agencies might be added to the interagency consultation group in the future; remove references to a particular number of public agencies; and remove the word "quality" from the term "local air quality agency" to create consistency with the term's usage throughout the rest of the rule. Also, the list of participating agencies in subsection (2)(B) is being revised to more clearly identify which member agency name corresponds to which agency type. Necessary corresponding changes are also being made to references to the list in subsection (2)(C).

COMMENT #4: EPA suggested that the incorporation by reference of 40 CFR 93 Subpart A in subsection (2)(A) of the proposed rule be revised to include the March 2010 amendment to the transportation conformity regulations found in 75 FR 14260.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the most current amendment to the federal transportation conformity regulations, which was published in the *Federal Register* on March 24, 2010, and took effect on April 23, 2010, will

be cited by revising the incorporated-by-reference language in subsection (2)(A).

COMMENT #5: In part (3)(B)2.E.(I), EPA suggested replacing a thirty (30)-day deadline phrase with — after receiving a final. The specific time frames for reviewing and commenting on conformity determinations are better suited to paragraph (3)(B)3.

RESPONSE AND EXPLANATION OF CHANGE: In part (3)(B)2.E.(I), it is confusing as to which thirty (30)-day period is being referred without further qualification. The thirty (30)-day period in question is described in greater detail in part (3)(B)5.D.(I) and therefore it is appropriate to leave the list of responsibilities with the term — in a timely fashion. EPA's comment #9 below addresses greater specificity for this thirty (30)-day period in part (3)(B)5.D.(I). EPA mentioned that reference to this time frame is better suited for paragraph (3)(B)3. but offered no suggested changes to this paragraph. Part (3)(B)2.E.(I) is being revised to replace the phrase as suggested. In addition, during review of this comment, it was noticed that the rule text was missing subparagraph (3)(B)5.J. so subparagraphs (3)(B)5.K. and (3)(B)5.L. were renumbered correctly.

COMMENT #6: EPA recommended that a change to the language in subparagraph (3)(B)3.C. be considered to clarify that all conformity determinations with all supporting documentation and data will be provided in a readily-accessible manner.

RESPONSE AND EXPLANATION OF CHANGE: For clarity, subparagraph (3)(B)3.C. is being revised to include the suggested phrase.

COMMENT #7: EPA suggested that subparagraph (3)(B)3.D. be amended to clarify that public participation procedures are followed when conformity determinations are made available to the public.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, subparagraph (3)(B)3.D. is being revised to include the suggested phrase.

COMMENT #8: EPA requested that a change to part (3)(B)5.D.(I) be considered to require the submission of the conformity determination documents to the participating public agencies be in hard copy and electronic format.

RESPONSE: Not all the participating public agencies require, or desire, that the often-voluminous conformity documents be in a hard or paper medium. Requiring a paper copy be sent to each agency is burdensome in terms of both time and resources. The interagency consultation process outlined in this rule allows for the cooperation necessary to determine the format or medium preferred by each individual agency without the need for it to be prescribed by rule. Therefore, no changes to the proposed amendment were made as a result of this comment.

COMMENT #9: EPA also recommended that part (3)(B)5.D.(I) be revised to clarify exactly when the EPA's thirty (30)-day review clock starts.

RESPONSE AND EXPLANATION OF CHANGE: To more clearly define this thirty (30)-day clock and to ensure a more timely and efficient review process, the proposed amendment is being amended with the language suggested. This language will clarify that this thirty (30)-day period starts only after the request with the final conformity determination and all relevant documents, including data and the supporting documentation, are received.

COMMENT #10: EPA commented that clarification may be needed to the conflict resolution provisions. Subparagraphs (3)(B)6.B. and (3)(B)6.C. are confusing because a fourteen (14)-day calendar window in subparagraph (3)(B)6.C. is described without previous reference in subparagraph (3)(B)6.B. Conflict resolution and the fourteen (14)-day calendar window are explained further in 40 CFR 93.105.

RESPONSE AND EXPLANATION OF CHANGE: It is stated in 40

CFR 93.105(d) that the state air agency has fourteen (14) calendar days to appeal to the governor after the state department of transportation or MPO has notified the state air agency head of the resolution of the comments. The intent of the rule amendment is to make this paragraph consistent with the federal Code. Therefore, clarification language is being added to subparagraph (3)(B)6.B. to introduce the concept of this fourteen (14)-day calendar window prior to its description in the subsequent subparagraph.

COMMENT #11: EPA recommended that the first sentence of subparagraph (3)(B)7.B. be removed and replaced with language that states that the existing public participation procedures may be used to meet the participation requirements as long as the minimum requirements of subparagraph (3)(B)7.A. are met. The proposed amendment, as written, is not clear as to how an existing public process would be equivalent to the rule public participation requirements. The rule should clarify that the minimum requirements in the rule must be met regardless of whether there is a previous existing process.

RESPONSE AND EXPLANATION OF CHANGE: The language in the first sentence of subparagraph (3)(B)7.B. of the proposed amendment is not clear which standards are referred to. However, EPA's suggested language would have removed a reference to the Missouri Sunshine Law. Alternatively, to clarify our intent that any other public participation process must meet the required transportation conformity public participation process standards, the phrase at the end of this sentence — which already meets or exceeds these standards — is being revised to read — which meets or exceeds the requirements of subparagraph (3)(B)7.A. of this rule.

10 CSR 10-5.480 St. Louis Area Transportation Conformity Requirements

(1) Applicability.

(A) This rule applies to all Environmental Protection Agency (EPA) designated nonattainment and maintenance areas for transportation-related criteria pollutants.

(2) Definitions.

(A) Definitions for key words and phrases used in this rule may be found in subsection 40 CFR 93.101 of 40 CFR 93 Subpart A, promulgated as of July 1, 2009, including the revision published at 75 FR 14283 (effective April 23, 2010) and hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions.

(B) Participants in the interagency consultation process will be comprised of management and technical staff members from the following public agencies:

1. City of St. Louis Department of Health Air Pollution Control Program—a local air agency;
2. East-West Gateway Council of Governments—the metropolitan planning organization;
3. Federal Highway Administration, Illinois Division—a federal transportation agency;
4. Federal Highway Administration, Missouri Division—a federal transportation agency;
5. Federal Transit Administration, Region 7—a federal transportation agency;
6. Illinois Department of Transportation—a state transportation agency;
7. Illinois Environmental Protection Agency's Bureau of Air—a state air agency;
8. Madison County Highway Department—a local transportation agency;
9. Madison County Transit District—a local mass-transit agency;

10. Metro (Bi-State Development Agency)—a local mass-transit agency;

11. Missouri Department of Natural Resources' Air Pollution Control Program—a state air agency;

12. Missouri Department of Transportation—a state transportation agency;

13. St. Clair County Department of Roads and Bridges—a local transportation agency;

14. St. Clair County Transit District—a local mass-transit agency;

15. St. Louis County Department of Health—a local air agency;

16. St. Louis County Department of Highways—a local transportation agency;

17. U.S. Environmental Protection Agency, Region 5—a federal air agency; and

18. U.S. Environmental Protection Agency, Region 7—a federal air agency.

(C) When a reference is made in this rule to the state air agencies, the local air agencies, the state transportation agencies, the local transportation agencies, the MPO, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the EPA, this means the corresponding public agencies as indicated in subsection (2)(B) of this rule that are participants in the interagency consultation process.

(D) The process for additional agency participation is as follows:

1. For local transportation agencies, the MPO and the Illinois Department of Transportation will jointly appoint Illinois representatives, and the MPO and the Missouri Department of Transportation will jointly appoint Missouri representatives;

2. For local air agencies, the MPO and the Missouri Department of Natural Resources will jointly appoint Missouri representatives, and the MPO and the Illinois Environmental Protection Agency's Bureau of Air will jointly appoint Illinois representatives;

3. For local mass-transit agencies, the MPO and the Illinois Department of Transportation will jointly appoint Illinois representatives, and the MPO and the Missouri Department of Transportation will jointly appoint Missouri representatives;

4. Nothing in this paragraph will preclude the authority of the lead agencies listed in subparagraphs (3)(B)1.A., B., and C. of this rule to involve additional agencies in the consultation process which are directly impacted by any project or action subject to this rule; and

5. Representatives appointed under paragraphs (2)(D)1., 2., 3., and 4. of this rule will not come from an agency already represented as a consulting agency under subsection (2)(B) of this rule.

(3) General Provisions.

(B) Interagency Consultation Procedures. This section of the rule provides the specific aspects of the transportation conformity interagency consultation process.

1. General factors.

A. Representatives of the MPO and the public agencies listed in subsection (2)(B) of this rule will undertake an interagency consultation process in accordance with this section with each other and with the EPA, the FHWA, and the FTA on the development of the transportation conformity state implementation plan (SIP), the transportation plan, the transportation improvement plan (TIP), any revisions to the preceding documents, and all conformity determinations required by this rule.

B. The state air agencies will be the lead agencies responsible for preparing the final document or decision and for assuring the adequacy of the interagency consultation process with respect to the development of applicable transportation-related implementation and control strategy SIP revisions for their respective areas of jurisdiction.

C. The East-West Gateway Council of Governments (St. Louis's metropolitan planning agency (MPO)) will be the lead agency responsible for preparing the final document or decision and for assuring the adequacy of the interagency consultation process with

respect to the development of the long-range transportation plan, the TIP, any amendments or revisions thereto, and for providing assistance for technical analyses by employing travel-demand modeling techniques and acquiring all necessary data in the metropolitan area under its jurisdiction.

D. In addition to the lead agencies identified in subparagraphs (3)(B)1.A., B., and C. of this rule, other agencies entitled to actively participate in the interagency consultation process under this rule are listed in subsection (2)(B) of this rule.

E. It will be the role and responsibility of each lead agency in an interagency consultation process, as specified in subparagraphs (3)(B)1.A., B., and C. of this rule, to confer with all other agencies identified in subparagraphs (3)(B)1.A., B., C., and D. of this rule, to provide all appropriate information to those agencies needed for meaningful input, to solicit early and continuing input from those agencies, to conduct the consultation process described in 40 CFR 93.105, to assure policy-level contact with those agencies, to consider the views of each such agency and respond to those views in a period not to exceed thirty (30) days from the date received prior to any final decision on such document, and to assure that such views and written response are made part of the record of any decision or action. Each lead agency will provide all necessary documentation for review at the initiation of, or prior to, the review and comment period. Information for scheduled meetings will be distributed to participants at least seven (7) days before the scheduled meeting. It will be the role and responsibility of each agency specified in subparagraphs (3)(B)1.A., B., C., and D. of this rule, when not fulfilling the role and responsibilities of a lead agency, to confer with the lead agency and other participants in the consultation process, to review and comment as appropriate (including comments in writing) on all proposed documents and decisions in a period not to exceed thirty (30) days, to attend consultation and decision meetings, to assure policy-level contact with other participants, to provide input on any area of substantive expertise or responsibility, and to provide technical assistance to the lead agency or consultation process in accordance with this rule when requested.

F. Consultation on specific transportation conformity issues, other than the continual process of keeping all the agencies informed on all conformity and SIP actions, may be initiated at any time during the document development process by any of the agencies specified in subparagraphs (3)(B)1.A., B., C., and D. of this rule. It will be the responsibility of the initiate to ensure that all other agencies identified in subparagraphs (3)(B)1.A., B., C., and D. of this rule are notified of any such action. All agencies so notified must respond to the issue(s) raised within fourteen (14) days unless an alternate schedule is agreed upon by all participants.

G. It will be the responsibility of the MPO and the state transportation agencies to provide the state and local air agencies with the latest version of the TIP, the statewide transportation improvement plan (STIP), and the transportation plan.

H. It shall be the responsibility of the state air agencies to provide the MPO, state transportation agencies, the FHWA, the FTA, and the EPA with the latest version of the SIP.

I. It will also be the responsibility of each of the agencies specified in subparagraphs (3)(B)1.A., B., C., and D. of this rule to keep their own superiors and constituents properly informed of conformity determinations.

J. The agencies specified in subparagraphs (3)(B)1.A., B., C., and D. of this rule may employ consultant services at their own discretion.

2. Specific roles and responsibilities of various participants in the interagency consultation process will be—

A. The state air agencies listed in subsection (2)(B) of this rule will be responsible in relation to SIP development for—

(I) Developing emissions inventories;

(II) Developing emissions budgets;

(III) Conducting air quality modeling;

(IV) Developing attainment and maintenance demonstrations;

(V) Revising control strategy implementation plans;

(VI) Regulatory Transportation Control Measures (TCMs) intended to provide enforceable emission reductions;

(VII) Compiling motor vehicle emissions factors;

(VIII) Meeting all the EPA reporting requirements related to air quality; and

(IX) Responding to all comments concerning the SIP;

B. The local air agencies will be responsible for their areas of jurisdiction, with the state air agencies being responsible for all remaining counties, as well as being responsible for ensuring that the local air agencies fulfill these tasks. Local air agencies may request assistance from the state air agencies in any of the responsibilities listed here;

C. The MPO will be responsible in their area of jurisdiction for—

(I) Developing and monitoring transportation plans and TIPs;

(II) Evaluating the transportation impacts and feasibility of TCMs;

(III) Developing transportation and socioeconomic data and latest planning assumptions and providing such data and planning assumptions to the state air agencies for use in air quality analysis;

(IV) Developing system- or facility-based or other programmatic (non-regulatory) TCMs;

(V) Providing technical and policy input on emissions budgets;

(VI) Performing transportation modeling including:

(a) Selecting and evaluating such models;

(b) Documenting their use in conformity determinations;

and

(c) Alerting, for comment, the agencies identified in subparagraphs (3)(B)1.A., B., C., and D. of this rule, when any new model is being tested or employed;

(VII) Developing draft and final conformity determination documents for all transportation plans, TIPs, and projects;

(VIII) Monitoring and coding regionally-significant projects into the transportation networks;

(IX) Developing statistical information such as vehicle miles traveled, vehicle mix, and vehicle speeds for use in on-road mobile emissions analysis;

(X) Making elections regarding the time frame of the conformity determination under 40 CFR 93.106(d);

(XI) Identifying planning assumptions and evaluating those assumptions for consistency with SIP assumptions;

(XII) Developing draft documents, record notes, and distribute agendas prior to meetings (in person or by conference calls or other practical electronic means);

(XIII) Providing all appropriate information to those agencies needed for meaningful input and provide all draft and supportive documentation (hard copy or electronic format) in a timely manner to participating agencies; and

(XIV) Preparing the final document subject to interagency consultation will assure that all relevant documents and information are supplied to all participants in the consultation process prior to the release for public review;

D. The state transportation agencies listed in subsection (2)(B) of this rule will be responsible for—

(I) Developing the Statewide Transportation Plan and the STIP;

(II) Providing technical input on new and proposed revisions to motor vehicle emission budgets;

(III) Distributing draft and final environmental documents to other agencies;

(IV) Providing the transportation-related information needed for mobile emissions analysis;

(V) Developing the statistical information, such as vehicle miles traveled, vehicle mix, and vehicle speeds, for use in on-road mobile emission analysis for areas outside the MPO boundary;

(VI) Developing the draft document(s) related to the National Environmental Policy Act (NEPA) process, providing it for review, responding to comments, and preparing the final document(s);

(VII) Performing transportation modeling, including:

(a) Selecting and evaluating such models;

(b) Documenting their use in conformity determinations;

and

(c) Alerting, for comment, the agencies identified in subparagraphs (3)(B)1.A., B., C., and D. of this rule, when any new model is being tested or employed;

(VIII) Making conformity determinations for areas outside of the MPO boundary;

(IX) Convening consultation to cooperatively choose the appropriate conformity test(s) and methodologies for use in isolated rural nonattainment and maintenance areas, as required by 40 CFR 93.109(n)(2)(iii); and

(X) Convening air quality technical review meetings on specific projects when requested by other agencies or as needed;

E. The FHWA and the FTA will be responsible for—

(I) Ensuring timely action on final determinations of conformity after receiving a final conformity determination after consultation with other agencies as provided in this rule and 40 CFR 93.105;

(II) Providing guidance on conformity and the transportation planning process to participating agencies in interagency consultation; and

(III) Reviewing and commenting on conformity determinations; and

F. The EPA will be responsible for—

(I) Reviewing motor vehicle emissions budgets in submitted SIPs and finding them adequate or inadequate based on adequacy criteria and procedures;

(II) Providing guidance on conformity criteria and procedures to agencies in interagency consultation;

(III) Approving or disapproving submitted SIP revisions (including TCMs);

(IV) Providing modeling and emissions inventory development assistance to the state air agencies, the state transportation agencies, and the MPO; and

(V) Providing comments on the regional emissions analyses and conformity determination of transportation plans, TIPs, and projects.

3. Conformity determinations.

A. All conformity determinations will be initiated by the sponsor of the transportation plan, program, or project subject to the conformity rule.

(I) The MPO will be responsible for initiating conformity determinations for plans, programs, or projects within the specific MPO boundary.

(II) The state transportation agencies will be responsible for initiating conformity determination for plans, programs, or projects external to an MPO boundary including isolated rural nonattainment and maintenance areas as required by 40 CFR 93.109(n)(2)(iii).

(III) The MPO and state transportation agencies will employ interagency consultation procedures to ensure compatibility of conformity determinations for the same or overlapping nonattainment or maintenance area(s).

B. It will be the responsibility of the MPO and the state transportation agencies to submit any conformity determinations to the FHWA and the FTA in consultation with the EPA, state air agencies, and local transportation agencies for review and approval before the plan, program, or project subject to the conformity rule may be found to conform or project found to be exempt.

C. All conformity determinations with all supporting documentation and data will be made available for review and comment in a readily-accessible manner to the state air agencies and local air agencies, and the FHWA and FTA in consultation with the EPA no less than thirty (30) days prior to presentation to a policy-making body (electronic copy acceptable). Shorter review periods may be allowed occasionally in emergency situations with participant concurrence.

D. It is the responsibility of the MPO to make all conformity determinations available to the general public by following public participation procedures.

E. Conformity determinations, at a minimum, should include written documentation for:

(I) All the input run streams for the latest mobile emissions model and latest planning assumptions on the date that the conformity analysis began (with the beginning date and the criteria used to identify this date specified) and attestation that the latest mobile emissions model is being used;

(II) Transportation-related information and assumptions used for input into the mobile model, such as vehicle miles traveled, vehicle speeds, and vehicle mix, along with a brief description of the source of this information, including documentation of any transportation-related models used; and

(III) A description of the project, plan, or program that is the subject of the conformity or exemption status determination(s).

F. State air agencies and/or local air agencies, where applicable, will review and provide written comment on final conformity determinations within fourteen (14) days of the date received. This process will consist of—

(I) Review of mobile emissions model inputs and outputs;

(II) Verification that the latest mobile emissions model and planning assumptions are being used;

(III) Review of the reasonableness of transportation-related data; and

(IV) Ensuring consistency with the emissions budget and/or the interim emission tests, as applicable.

G. It will be the responsibility of the MPO, or the state transportation agencies where applicable, making a conformity determination, to provide the state air agencies and the applicable local air agencies, the FHWA, the FTA, and the EPA with documentation of the conformity determination.

H. It will be the responsibility of the state air agencies to provide the affected MPO, the FHWA, the FTA, the EPA, the local air agencies, and the state transportation agencies with appropriate information regarding any SIP changes that could impact the conformity process.

I. It will be the responsibility of the EPA to provide the state air agencies, the local air agencies, the FHWA, the FTA, the state transportation agencies, and the MPO information regarding changes to the conformity rule that could impact conformity determinations.

J. Emissions reduction credit from control measures that are not included in the transportation plan and TIP and that do not require a regulatory action in order to be implemented may not be included in the emissions analysis unless written commitments to implementation are obtained by the MPO (or the state transportation agencies where applicable) prior to the conformity determination and such commitments must be fulfilled by the implementing entities. This rule satisfies the requirement of 40 CFR 93.122(a)(4)(ii).

K. Written commitments to mitigation measures for project-level mitigation and control measures must be provided by the project sponsors to the FHWA (or the FTA for transit-related projects) prior to a positive project-level conformity determination and the project sponsors must comply with such commitments. This rule satisfies the requirement of 40 CFR 93.125(c).

L. In order to assure the most recent planning assumptions are in place at the time the conformity analysis begins, the “time the conformity analysis begins” is to be determined by interagency consultation and documented. This point in time should occur at the

point at which the MPO begins to model the impact of the transportation plan or TIP on travel and/or emissions. New data that becomes available after an analysis begins is required to be used in the conformity determination only if a significant delay in the analysis has occurred as determined through interagency consultation and documented in writing and included in publicly available documentation of conformity analysis.

M. Consultation will be undertaken and conducted in accordance with this rule to evaluate events which will trigger new conformity determinations in addition to those triggering events established in 40 CFR 93.104, including any changes in planning assumptions that may trigger a new conformity determination. The consultation process pursuant to this rule will be initiated by the FHWA, the EPA, the state air agencies, state transportation agencies, or the MPO.

4. Implementation plans.

A. Any proposed revisions to the SIP, which may have a direct or indirect effect upon the motor vehicle emissions budget for an area subject to conformity, will be made available to the MPO specified in this rule, as well as state transportation agencies, the FHWA, the FTA, and the EPA in written or electronic form for their review and comment at least thirty (30) days before presentation to the respective state air commissions.

B. The state air agencies will also provide the public a period from the date of announcement to comment on any proposed SIP revisions which may have a direct or indirect effect upon the motor vehicle emissions budget for an area subject to conformity as defined in subparagraph A. of this paragraph.

C. Any proposed revisions to the SIP will include documentation on methods of analysis, models employed, and purpose of the revision.

5. Other processes.

A. The state air agencies will be responsible for the process whereby the MPO, the local air agencies, the state transportation agencies, the FHWA, the FTA, and the EPA will study and develop supplementary consultation procedures to identify, evaluate, and address, as needed, specific issues. In the absence of supplementary consultation procedures, the state air agencies will include the following items for discussion during interagency consultation meetings in advance of a conformity determination:

(I) Hot-spot analysis methods, models, and assumptions;

(II) Determination of regionally-significant projects and projects considered to have a significant change in design concept and scope;

(III) Evaluating when exempt projects should be treated as non-exempt;

(IV) Timely implementation of TCMs and processing of TCM substitutions;

(V) Identifying conformity determination triggers other than those established in 40 CFR 93.104; and

(VI) Methods, models, and assumptions for regional emissions analysis.

B. These supplementary procedures in subparagraph A. of this paragraph may be specific for the metropolitan area or each nonattainment or maintenance area subject to the conformity rule.

C. The state air agencies will conduct meetings to discuss any supplementary consultation procedure as needed.

D. Final document distribution for conformity determinations associated with plans, TIPs, and STIPs (occasionally, alternate schedules may be used with concurrence by participants)—

(I) The final air quality conformity determination, necessary supporting documentation, and the plan and TIP will be submitted to the FHWA Division Office, the FTA Regional Office, the EPA Regional Office, the state transportation agencies, state air agencies, and any applicable local air agencies. The EPA will respond in writing to the FTA Regional Office and the FHWA Division Office as soon as possible, but not later than thirty (30) days after EPA receives a formal request from FHWA and FTA with all the relevant

documentation including the final conformity determination with supporting documentation and data;

(II) Comments will be resolved by the FHWA and the FTA, in concert with the EPA, the MPO, or the state transportation agencies, in their respective areas, as necessary;

(III) The FHWA and the FTA will jointly prepare correspondence to make the conformity finding. Joint conformity findings will be addressed to the MPO with a copy to the state transportation agencies, the EPA, the state air agencies, and any applicable local air agencies. The findings of the FHWA and the FTA together constitute the U.S. Department of Transportation (DOT) conformity findings;

(IV) In the event that the MPO or the state transportation agencies, in their respective areas, wishes to amend the TIP to add projects that are exempt from the conformity analysis requirement, the FHWA or the FTA, or both if necessary, will concur in the amendment and reaffirm the original DOT conformity finding by letter. This reaffirmation letter will reference the date(s) of the original FHWA and FTA findings. In cases where the amendment involves projects that are not exempt, a new conformity analysis and determination will be required, and will, in turn, require a new DOT conformity finding; and

(V) Within fifteen (15) days subsequent to approval of final documents including transportation plans, TIPs, conformity determinations, applicable implementation plans, and implementation plan revisions, the lead agency will provide copies (electronic copies acceptable) of such documents and supporting information to all affected agencies.

E. Generalized hot-spot determination process. Interagency consultation will be undertaken to evaluate and choose a model(s), associated methods, and planning assumptions to be used in hot-spot analyses. The generalized hot-spot determination process (occasionally, alternate schedules may be used with concurrence by participants) entails—

(I) The project sponsor (or the state transportation agencies or the MPO) will seek consensus if the project is believed to be exempt from hot-spot analysis. This can be accomplished through electronic transmittal, providing for a minimum of fourteen (14) days for review. If requested, an additional fourteen (14) days will be provided for review, as well as any additional information needed to make the determination;

(II) If the project is not exempt, the project sponsor (or the state transportation agencies or the MPO) will collect and organize and distribute specific data needed to determine whether nonexempt projects are or are not of air quality concern. This can be accomplished through electronic transmittal, providing for a minimum of fourteen (14) days for review. If requested, an additional fourteen (14) days will be provided for review, as well as any additional information needed to make the determination; and

(III) If it is determined the project is a project of air quality concern, the project sponsor (or the state transportation agencies or the MPO) will then engage and begin a consultation process to evaluate and choose a model (or models) and associated methods and assumptions to be used in hot-spot analysis. The project sponsor (or the state transportation agencies or the MPO) will make a $PM_{2.5}$ hot-spot determination (i.e., project-level conformity determination) and request that other stakeholder agencies comment on the conclusions through formal interagency consultation as provided in this rule.

F. Regionally-significant projects. For purposes of regional emissions analysis, the MPO will actively consult with the affected agencies to determine which minor arterials and other transportation projects should be considered “regionally-significant” projects (in addition to those functionally classified as principal arterial or higher or fixed guideway systems or extensions that offer an alternative to regional highway travel) and which projects should be considered to have a significant change in design concept and scope from the transportation plan or TIP. Prior to initiating any final action on these issues, the MPO (or the state transportation agencies, if applicable)

will consider the views of each agency that comments and respond in writing.

G. Transportation control measures (TCMs).

(I) For each plan or TIP update, the agencies specified in subparagraphs (3)(A)2.A., B., C., and D. to participate in consultation will review whether past obstacles to implementation of TCMs which are behind the schedule established in the applicable implementation plan are being overcome and whether state and local agencies with influence over approval or funding for TCMs are giving maximum priority to approval or funding for TCMs. If necessary, consideration will be given as to whether delays in TCM implementation necessitate revisions to the applicable implementation plan to remove TCMs or substitute TCMs or other emission reduction measures.

(II) Where TCMs are to be included in an applicable implementation plan, a list of TCMs will be developed by the MPO or the state transportation agencies, or both.

H. Exempt projects which may be nonexempt. The MPO (or state transportation agencies where applicable) will commence consultation regarding potentially exempt projects to (occasionally, alternate schedules may be used with concurrence by participants)—

(I) Identify exempt projects as defined by 40 CFR 93.126 Table 2 and 40 CFR 93.127 Table 3;

(II) Identify exempt projects and categories of exempt projects which should be treated as nonexempt because they may have adverse air quality impacts and determine appropriate air quality analysis methodologies for analyzing such projects;

(III) Identify transportation plan, TIP, and STIP revisions which add or delete exempt projects, as defined in 40 CFR 93.126 Table 2 and 40 CFR 93.127 Table 3; and

(IV) The MPO (or the state transportation agencies where applicable) will seek consensus from the consultation participants if the project is believed to be exempt. This can be accomplished through electronic transmittal, providing for a minimum of fourteen (14) days for review. If requested, an additional fourteen (14) days will be provided for review, as well as any additional information needed to make the determination.

I. Project disclosure—

(I) The sponsor of any potentially regionally-significant project, and any agency that is responsible for taking action(s) on any such project, will disclose such project to the state transportation agencies and the MPO in a timely manner. Such disclosure will be made not later than the first occasion on which any of the following actions is sought: any policy board action necessary for the project to proceed; the issuance of administrative permits for the facility or for construction of the facility; the execution of a contract to design or construct the facility; the execution of any indebtedness for the facility; any final action of a board, commission, or administrator authorizing or directing employees to proceed with design, permitting, or construction of the project; the execution of any contract to design or construct; or any approval needed for any facility that is dependent on the completion of the regionally-significant project. To help assure timely disclosure, the sponsor of any potentially regionally-significant project will disclose to the state transportation agencies and the MPO on a schedule prescribed by the state transportation agencies and the MPO, but no less than annually, each project for which alternatives have been identified through the National Environmental Policy Act (NEPA) process and any preferred alternative that may be a regionally-significant project. The consultation process will include assuming the location, design concept, and scope of the project, where the sponsor has not yet decided these features, in sufficient detail to allow the MPO (or the state transportation agencies) to perform a regional emissions analysis. This consultation process pursuant to this rule will be initiated by the state transportation agencies and the MPO; and

(II) In the case of any such regionally-significant project that has not been disclosed to the MPO and the other interested agencies participating in the consultation process in a timely manner, such

regionally-significant project will not be considered to be included in the regional emissions analysis supporting the current conformity determination and not to be consistent with the motor vehicle emissions budget in the applicable implementation plan or interim budget.

J. Transportation model development. An interagency consultation process in accordance with the interagency consultation procedures outlined in this rule will be undertaken for the design, schedule, and funding of research and data collection efforts related to regional transportation model development (such as household travel transportation surveys), to be initiated by MPO.

K. Responding to significant comments. If the written response to a significant comment does not adequately address the commenting agency's concerns, further consultation is to be conducted. If a regularly-scheduled meeting is to be held within a reasonable time frame of the receipt of the significant comment, it should be made a part of that meeting's agenda and information on the issue will be forwarded to all involved agencies. If necessary, discussion and resolution of the significant comment will be considered a reason to convene a special meeting with the commenting agency as the requester and the agenda consisting of the significant comment.

6. Resolving conflicts. Any conflict among state agencies or between state agencies and the MPO will be escalated to the governor if the conflict cannot be resolved by the heads of the involved agencies. All agencies involved will make every effort to resolve any differences, including personal meetings between the heads of such agencies or their policy-level representatives, to the extent possible. The appeal process described herein will apply only to the MPO (or the state transportation agencies) approved conformity determinations on the transportation plan, TIP, or projects (including project-level determinations), including any documents directly related to determinations of conformity and conflicts between state agencies or between one (1) or more state agencies and the MPO. Conflicts regarding SIPs should be appealed to the respective state air commissions.

A. In the event that the MPO or the state transportation agencies determine that every effort has been made to address the state air agencies' concerns and no further progress is possible, the MPO or the state transportation agencies will notify the directors of the respective state air agencies in writing to this effect. The memorandum will delineate each unresolved issue to be appealed and will include, at a minimum:

(I) The legal basis of the issue/conflict and steps taken to resolve the conflict;

(II) Relevant reference material needed to facilitate review and mediation of the conflict, including all relevant portions of state and federal law and regulations, conformity requirements, and any other relevant documents;

(III) A description of all reasonable alternatives and supporting data and justification for each alternative. Quantify and document the need for the recommended alternative consistent with the Clean Air Act of 1990 et seq. and the applicable state and federal laws and regulations; and

(IV) An explanation of the consequences of not reaching a resolution.

B. If conflicts concerning conformity determinations cannot be resolved by the interagency consultation procedures, then the state air agencies will notify the agency or agencies involved in the conflict of its intent to escalate the conflict resolution to the office of the governor within fourteen (14) calendar days.

C. The fourteen (14)-calendar-day window will commence—

(I) On the date that the directors of the state air agencies and the head of the agency or agencies involved in the conflict officially agree that the conflict cannot be resolved; or

(II) One (1) or more agencies other than the state air agencies request the start of the fourteen (14)-day clock on a specified

date, after notifying all other agencies involved of their intent, and the state air agencies agree.

D. If the state air agencies do not contact the office of the governor within the fourteen (14)-calendar-day window, then the issue in conflict is considered to be resolved in favor of the agency in conflict with the state air agencies.

E. The governor may delegate his or her role but not to the head or staff of the state air agencies, the state transportation agencies, a state transportation commission or board, or an MPO.

F. The state air agencies will notify involved parties of the final decision by the office of the governor.

7. Public participation.

A. Each agency subject to conformity will provide the general public a window of opportunity no less than thirty (30) days to review and comment on new conformity determinations before formal action (approval or endorsement by an executive committee of the MPO for submission to the FHWA and the FTA for their finding) is taken on all transportation plans, TIPs, and STIPs, consistent with these requirements and those of 23 CFR 450.316(a). A comment period of no less than fourteen (14) days will be made available to the public on amendments to conformity determinations and associated documents. The state and local air agencies will offer the public the same opportunity to comment before final action on SIPs which may have a direct or indirect effect upon the motor vehicle emissions budget for an area subject to conformity. The notification process will include, at a minimum, public notices and submittals to public depositories. In addition, all public comments that specifically address known plans for a regionally-significant project which is not receiving FHWA or FTA funding or approval and has not been properly reflected in the emissions analysis supporting a proposed conformity determination for a transportation plan or TIP, must be responded to in writing within thirty (30) days of the end of the comment period.

B. The public participation procedure defined in subparagraph A. of this paragraph will not be construed as superseding public involvement procedures already in effect for agencies subject to the conformity consultation process, such as the MPO's citizen involvement process, the Missouri Sunshine Law (Chapter 610, RSMo), or any other established process which already meets or exceeds the requirements of subparagraph (3)(B)7.A. of this rule. In addition, this subparagraph does not apply to project-level conformity determinations subject to NEPA where a NEPA public participation process exists.

C. The public or any interested party may also inspect any of the documents related to the conformity process upon request. Any charges imposed on the public for inspection or copying documents related to the conformity process will be consistent with (or no greater than) the fee schedule contained in 49 CFR 7.43.

Title 10—DEPARTMENT OF NATURAL RESOURCES

Division 10—Air Conservation Commission

Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2000, the commission amends a rule as follows:

10 CSR 10-6.070 New Source Performance Regulations is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 2, 2010 (35 MoReg 1091-1092). No changes have been made in the text

of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No written or verbal comments were received concerning this proposed amendment during the public comment period.

**Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 6—Air Quality Standards, Definitions, Sampling
and Reference Methods and Air Pollution Control
Regulations for the Entire State of Missouri**

ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2000, the commission amends a rule as follows:

**10 CSR 10-6.075 Maximum Achievable Control Technology
Regulations is amended.**

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 2, 2010 (35 MoReg 1092–1094). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No written or verbal comments were received concerning this proposed amendment during the public comment period.

**Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 6—Air Quality Standards, Definitions, Sampling
and Reference Methods and Air Pollution Control
Regulations for the Entire State of Missouri**

ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2000, the commission amends a rule as follows:

**10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants
is amended.**

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 2, 2010 (35 MoReg 1094–1095). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No written or verbal comments were received concerning this proposed amendment during the public comment period.

**Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 6—Air Quality Standards, Definitions, Sampling
and Reference Methods and Air Pollution Control
Regulations for the Entire State of Missouri**

ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2000, the commission amends a rule as follows:

**10 CSR 10-6.400 Restriction of Emission of Particulate Matter
from Industrial Processes is amended.**

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 2, 2010 (35 MoReg 1095). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No written or verbal comments were received concerning this proposed amendment during the public comment period.

**Title 11—DEPARTMENT OF PUBLIC SAFETY
Division 45—Missouri Gaming Commission
Chapter 1—Organization and Administration**

ORDER OF RULEMAKING

By the authority vested in the Missouri Gaming Commission under section 313.805, RSMo Supp. 2010, the commission amends a rule as follows:

11 CSR 45-1.090 Definitions is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 1, 2010 (35 MoReg 1246–1247). No changes have been made to the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held on this proposed amendment on October 6, 2010. No one commented at the public hearing, and no written comments were received.

**Title 11—DEPARTMENT OF PUBLIC SAFETY
Division 45—Missouri Gaming Commission
Chapter 4—Licenses**

ORDER OF RULEMAKING

By the authority vested in the Missouri Gaming Commission under section 313.805, RSMo Supp. 2010, the commission amends a rule as follows:

**11 CSR 45-4.020 Licenses, Restrictions on Licenses, Licensing
Authority of the Executive Director, and Other Definitions
is amended.**

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 1, 2010 (35 MoReg 1247–1249). No changes have been made to the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held on this proposed amendment on October 6, 2010. No one commented at the public hearing, and no written comments were received.

**Title 11—DEPARTMENT OF PUBLIC SAFETY
Division 45—Missouri Gaming Commission
Chapter 5—Conduct of Gaming**

ORDER OF RULEMAKING

By the authority vested in the Missouri Gaming Commission under section 313.805, RSMo Supp. 2010, the commission amends a rule as follows:

11 CSR 45-5.051 Minimum Standards for Blackjack is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 1, 2010 (35 MoReg 1249). No changes have been made to the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held on this proposed amendment on October 6, 2010. No one commented at the public hearing, and no written comments were received.

**Title 11—DEPARTMENT OF PUBLIC SAFETY
Division 45—Missouri Gaming Commission
Chapter 5—Conduct of Gaming**

ORDER OF RULEMAKING

By the authority vested in the Missouri Gaming Commission under section 313.805, RSMo Supp. 2010, the commission amends a rule as follows:

11 CSR 45-5.075 Payout Percentage for Table Games and Progressive Table Games is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 1, 2010 (35 MoReg 1250). No changes have been made to the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held on this proposed amendment on October 6, 2010. No one commented at the public hearing, and no written comments were received.

**Title 11—DEPARTMENT OF PUBLIC SAFETY
Division 45—Missouri Gaming Commission
Chapter 5—Conduct of Gaming**

ORDER OF RULEMAKING

By the authority vested in the Missouri Gaming Commission under section 313.805, RSMo Supp. 2010, the commission amends a rule as follows:

11 CSR 45-5.200 Progressive Slot Machines is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 1, 2010 (35 MoReg 1250–1251). No changes have been made to the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held on this proposed amendment on October 6, 2010. No one commented at the public hearing, and no written comments were received.

**Title 11—DEPARTMENT OF PUBLIC SAFETY
Division 45—Missouri Gaming Commission
Chapter 5—Conduct of Gaming**

ORDER OF RULEMAKING

By the authority vested in the Missouri Gaming Commission under section 313.805, RSMo Supp. 2010, the commission adopts a rule as follows:

11 CSR 45-5.300 Progressive Table Games is adopted.

A notice of proposed rulemaking containing the text of the proposed rule was published in the *Missouri Register* on September 1, 2010 (35 MoReg 1251–1252). No changes have been made to the text of the proposed rule, so it is not reprinted here. This proposed rule becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held on this proposed rule on October 6, 2010. No one commented at the public hearing, and no written comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.052 Sale of Ice is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1405–1406). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.330 Realty is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1314). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.333 Cities or Counties May Impose Sales Tax on Domestic Utilities is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1314). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.350 Movies, Records and Soundtracks is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1314–1315). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.352 Recording Devices is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1315). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.354 Pipeline Pumping Equipment is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1315). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.376 Rural Water Districts is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1315). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.382 Sales Made to and by Exempt Organizations is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1315–1316). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.388 Construction Materials is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1316). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.406 Caterers or Concessionaires is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1316). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director withdraws a proposed rescission as follows:

12 CSR 10-3.414 Yearbook Sales is withdrawn.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1316). This proposed rescission is withdrawn.

SUMMARY OF COMMENTS: The Department of Revenue received a number of comments that addressed similar concerns about the rescission of the Yearbook Sales regulation. The writers were concerned that the department or a taxpayer may consider yearbook sales taxable and that the threat of tax liability on yearbook purchases or sales could have a serious impact on school district finances and yearbook programs. The writers suggested the department amend 12 CSR 10-110.400, Newspaper and Other Publications, to include the current statement regarding yearbook sales prior to the rescission of this regulation, 12 CSR 10-3.414. RESPONSE: As a result, the department is withdrawing this rulemaking.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.426 Sales of Aircraft is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1406). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

**12 CSR 10-3.428 Cigarette and Other Tobacco Products Sales
is rescinded.**

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1406). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

**12 CSR 10-3.431 Handicraft Items Made by Senior Citizens
is rescinded.**

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1406). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.434 Motor Vehicle and Trailer Defined is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1406-1407). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.436 Manufactured Homes is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1407). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.438 Tangible Personal Property Mounted on Motor Vehicles is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1407). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.443 Motor Vehicle Leasing Divisions is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1407). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes

effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.444 Collection of Tax on Vehicles is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1408). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.446 Motor Vehicle Leasing Companies is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1408). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.490 Misuse of Sales Tax Data by Cities is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1408). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 3—State Sales Tax**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 144.270, RSMo Supp. 2010, the director rescinds a rule as follows:

12 CSR 10-3.496 Seller Timely Payment Discount is rescinded.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on October 1, 2010 (35 MoReg 1408). No changes have been made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 24—Driver License Bureau Rules**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under section 302.765, RSMo 2000 and section 302.775, RSMo Supp. 2010, the director amends a rule as follows:

**12 CSR 10-24.305 Commercial Driver License
Requirements/Exemptions is amended.**

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1316–1317). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 12—DEPARTMENT OF REVENUE
Division 10—Director of Revenue
Chapter 26—Dealer Licensure**

ORDER OF RULEMAKING

By the authority vested in the director of revenue under sections 301.553 and 301.559, RSMo 2000, sections 301.550 and 301.560, RSMo Supp. 2010, and sections 407.810–407.838, RSMo 2000 and Supp. 2010, the director amends a rule as follows:

12 CSR 10-26.020 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1317–1319). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Department of Revenue received two (2) comments on this proposed amendment.

COMMENT #1: Jeffrey Perry, with General Motors Company, requested that the mediator requirement be modified to allow a manufacturer to provide either a list of mediators or the name and address of the mediation service provider that it utilizes.

COMMENT #2: Amy Brink, with the Alliance of Automobile Manufacturers, requested that the mediator requirement be modified to allow a manufacturer to provide either a list of mediators or the name of the mediation service provider that it utilizes.

RESPONSE AND EXPLANATION OF CHANGE: The department concurs and has modified paragraph (9)(A)7. to include the option to submit the name and address of the mediation service provider.

12 CSR 10-26.020 License Requirements for Auctions, Dealers, Franchisors, and Manufacturers

(9) A “franchisor,” as defined in the MVFP Act, may meet the licensing requirements of the MVFP Act by obtaining a manufacturer’s license under this rule.

(A) Notwithstanding any other provision of this rule, an applicant for a manufacturer’s license, in order to comply with the franchisor licensing requirements of the MVFP Act, shall provide—

1. The street address for the franchisor location;
2. The telephone number for the franchisor location in paragraph (9)(A)1.;
3. A list of the names of the principal officers of the corporation;
4. A list of all other names it is doing business as, if applicable;
5. A list of all vehicle makes which the corporation authorizes franchise dealers to sell;
6. The state or province and the country of the franchisor’s location in paragraph (9)(A)1.;
7. The name and address of a mediation service provider or a list of mediators as prescribed in section 407.822, RSMo;
8. The motor vehicle or trailer manufacturer’s license fee as authorized by 12 CSR 10-26.040; and
9. A certified statement attesting that—
 - A. The franchisor’s place of business identified in paragraph (9)(A)1. is occupied and is used, in part, to facilitate the franchising of motor vehicle dealers who operate within the state of Missouri;
 - B. The franchisor maintains regular business hours during which the department is able to contact the franchisor; and
 - C. The franchisor will notify the department not less than ten (10) days prior to moving its place of business or changing its telephone number.

**Title 18—PUBLIC DEFENDER COMMISSION
Division 10—Office of State Public Defender
Chapter 2—Definition of Eligible Cases**

ORDER OF RULEMAKING

By the authority vested in the Missouri State Public Defender Commission under sections 600.017(10) and 600.043, RSMo 2000 and sections 600.042.1(8) and 600.042.3, RSMo Supp. 2010, the commission amends a rule as follows:

18 CSR 10-2.010 Definition of Eligible Cases is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 16, 2010 (35 MoReg 1180–1181). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2263—State Committee for Social Workers
Chapter 2—Licensure Requirements**

amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

ORDER OF RULEMAKING

By the authority vested in the State Committee for Social Workers under sections 337.600, 337.612, 337.627, and 337.665, RSMo Supp. 2010, the board amends a rule as follows:

20 CSR 2263-2.031 Acceptable Supervisors and Supervisor Responsibilities **is amended.**

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1320). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2263—State Committee for Social Workers
Chapter 2—Licensure Requirements**

ORDER OF RULEMAKING

By the authority vested in the State Committee for Social Workers under sections 337.600, 337.612, 337.615, 337.627, and 337.630, RSMo Supp. 2010, the board amends a rule as follows:

20 CSR 2263-2.045 Provisional Licenses **is amended.**

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1320–1322). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION
Division 2263—State Committee for Social Workers
Chapter 2—Licensure Requirements**

ORDER OF RULEMAKING

By the authority vested in the State Committee for Social Workers under sections 337.600, 337.612, 337.615, 337.627, and 337.630, RSMo Supp. 2010, the board amends a rule as follows:

20 CSR 2263-2.050 Application for Licensure as a Social Worker **is amended.**

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 15, 2010 (35 MoReg 1323). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed

This section may contain notice of hearings, correction notices, public information notices, rule action notices, statements of actual costs, and other items required to be published in the *Missouri Register* by law.

Title 4—DEPARTMENT OF ECONOMIC DEVELOPMENT

Division 240—Public Service Commission Chapter 32—Telecommunications Service

IN ADDITION

4 CSR 240-32.190 Standards for Providing Caller Identification Blocking Service

A notice of proposed rulemaking for 4 CSR 240-32.190 was published in the December 15, 2010, issue of the *Missouri Register* (35 MoReg 1848-1849). In the Notice of Public Hearing and Notice to Submit Comments, there were two (2) typographical errors; the date for the end of comments was listed as January 15, 2010, when it should have been listed as January 15, 2011, and the date for the hearing was listed as January 20, 2010, when it should have been listed as January 20, 2011. The correct notice appears below. We apologize for any inconvenience this may have caused.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: *Anyone may file comments in support of or in opposition to this proposed amendment with the Missouri Public Service Commission, Steven C. Reed, Secretary of the Commission, PO Box 360, Jefferson City, MO 65102. To be considered, comments must be received at the commission's offices on or before January 15, 2011, and should include a reference to Commission Case No. TX-2011-0071. Comments may also be submitted via a filing using the commission's electronic filing and information system at <http://www.psc.mo.gov/efis.asp>. A public hearing regarding this proposed amendment is scheduled for January 20, 2011, at 9:00 a.m. in the commission's offices in the Governor Office Building, 200 Madison Street, Jefferson City, Missouri, Room 305. Interested persons may appear at this hearing to submit additional comments and/or testimony in support of or in opposition to this proposed amendment and may be asked to respond to commission questions.*

SPECIAL NEEDS: *Any persons with special needs as addressed by the Americans with Disabilities Act should contact the Missouri Public Service Commission at least ten (10) days prior to the hearing at one (1) of the following numbers: Consumer Services Hotline 1-800-392-4211 (voice) or Relay Missouri at 711.*

Title 7—DEPARTMENT OF TRANSPORTATION

Division 10—Missouri Highways and Transportation Commission

Chapter 25—Motor Carrier Operations

IN ADDITION

7 CSR 10-25.010 Skill Performance Evaluation Certificates for Commercial Drivers

PUBLIC NOTICE

Public Notice and Request for Comments on Applications for Issuance of Skill Performance Evaluation Certificates to Intrastate Commercial Drivers with Diabetes Mellitus or Impaired Vision

SUMMARY: This notice publishes MoDOT's receipt of applications for the issuance of Skill Performance Evaluation (SPE) Certificates from individuals who do not meet the physical qualification requirements in the Federal Motor Carrier Safety Regulations for drivers of commercial motor vehicles in Missouri intrastate commerce, because of impaired vision or an established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control. If granted, the SPE Certificates will authorize these individuals to qualify as drivers of commercial motor vehicles (CMVs), in intrastate commerce only, without meeting the vision standard prescribed in 49 CFR 391.41(b)(10), if applicable, or the diabetes standard prescribed in 49 CFR 391.41(b)(3).

DATES: Comments must be received at the address stated below on or before February 1, 2011.

ADDRESSES: You may submit comments concerning an applicant, identified by the Application Number stated below, by any of the following methods:

- **Email:** Kathy.Hatfield@modot.mo.gov
- **Mail:** PO Box 893, Jefferson City, MO 65102-0893
- **Hand Delivery:** 1320 Creek Trail Drive, Jefferson City, MO 65109
- **Instructions:** All comments submitted must include the agency name and Application Number for this public notice. For detailed instructions on submitting comments, see the Public Participation heading of the Supplementary Information section of this notice. All comments received will be open and available for public inspection, and MoDOT may publish those comments by any available means.

COMMENTS RECEIVED BECOME MoDOT PUBLIC RECORD

- By submitting any comments to MoDOT, the person authorizes MoDOT to publish those comments by any available means.
- **Docket:** For access to the department's file, to read background documents or comments received, 1320 Creek Trail Drive, Jefferson City, MO 65109, between 7:30 a.m. and 4:00 p.m., CT, Monday through Friday, except state holidays.

FOR FURTHER INFORMATION, CONTACT: Ms. Kathy Hatfield, Motor Carrier Specialist, (573) 522-9001, MoDOT Motor Carrier Services Division, PO Box 893, Jefferson City, MO 65102-0893. Office hours are from 7:30 a.m. to 4:00 p.m., CT, Monday through Friday, except state holidays.

SUPPLEMENTARY INFORMATION

Public Participation

If you want us to notify you that we received your comments, please include a self-addressed, stamped envelope or postcard.

Background

The individuals listed in this notice have recently filed applications requesting MoDOT to issue SPE Certificates to exempt them from the physical qualification requirements relating to vision in 49 CFR 391.41(b)(10) or to diabetes in 49 CFR 391.41(b)(3), which otherwise apply to drivers of CMVs in Missouri intrastate commerce.

Under section 622.555, RSMo Supp. 2010, MoDOT may issue a Skill Performance Evaluation Certificate, for not more than a two (2)-year period, if it finds that the applicant has the ability, while operating CMVs, to maintain a level of safety that is equivalent to or greater than the driver qualification standards of 49 CFR 391.41. Upon application, MoDOT may renew an exemption upon expiration.

Accordingly, the agency will evaluate the qualifications of each applicant to determine whether issuing an SPE Certificate will comply with the statutory requirements and will achieve the required level of safety. If granted, the SPE Certificate is only applicable to intrastate transportation wholly within Missouri.

Qualifications of Applicants

Application #MP101124084

Applicant's Name & Age: Theodore E. Barrow, 52

Relevant Physical Condition: Mr. Barrow's best uncorrected visual acuity in his right eye is 20/25 Snellen, and he is blind in his left eye due to an accident when he was two (2) years old.

Relevant Driving Experience: Mr. Barrow has no commercial driving experience and intends to attend truck driving school. Previous employment has been in positions of tooling at various businesses since 1997. Drives personal vehicle(s) daily.

Doctor's Opinion & Date: Following an examination in November 2010, his optometrist certified, "In my medical opinion, Mr. Barrow's visual deficiency is stable and has sufficient vision to perform the driving tasks required to operate a commercial motor vehicle and that his condition will not adversely affect his ability to operate a commercial motor vehicle safely."

Traffic Accidents and Violations: No accidents or violations within the past three (3) years.

Application #MP101004076

Applicant's Name & Age: Patrick Flanagan, 47

Relevant Physical Condition: Mr. Flanagan's best uncorrected visual acuity in both eyes is 20/20 Snellen, and he was diagnosed with insulin-treated diabetes mellitus in 2000.

Relevant Driving Experience: He is currently retired; however, he drove passenger vehicles that require a Class E license in 2009. Drives personal vehicle(s) daily.

Doctor's Opinion & Date: Following an examination in November 2010, his endocrinologist certified, "In my medical opinion, Mr. Flanagan's diabetes deficiency is stable, and he is capable of performing the driving tasks required to operate a commercial motor vehicle and that his condition will not adversely affect his ability to operate a commercial motor vehicle safely."

Traffic Accidents and Violations: No accidents and one (1) speeding ticket, not in a commercial motor vehicle, within the past three (3) years.

Application #MP080721037

Renewal Applicant's Name & Age: Jeremy Leon Igert, 34

Relevant Physical Condition: Mr. Igert's best uncorrected visual acuity in both eyes is 20/20 Snellen. He has insulin-treated diabetes mellitus and has been using insulin for control since January 2008.

Relevant Driving Experience: Mr. Igert has driven approximately eleven (11) years for a Pepsi and related-product company in Springfield, Missouri. Drives personal vehicle(s) daily.

Doctor's Opinion & Date: Following an examination in June 2010, his endocrinologist certified, "In my medical opinion, Mr. Igert's diabetes deficiency is stable, and he is capable of performing the driving

tasks required to operate a commercial motor vehicle and that the applicant's condition will not adversely affect his ability to operate a commercial motor vehicle safely."

Traffic Accidents and Violations: One (1) accident, not in a commercial motor vehicle, and no violations within the past three (3) years.

Application #MP101124085

Applicant's Name & Age: Anthony S. Tettaton, 53

Relevant Physical Condition: Mr. Tettaton's best uncorrected visual acuity in both eyes is 20/20 Snellen. He has insulin-treated diabetes mellitus and has been using insulin for control since August 2007.

Relevant Driving Experience: Mr. Tettaton has driven commercial motor vehicles approximately sixteen (16) years, including, but not limited to, concrete mixing trucks. Drives personal vehicle(s) daily.

Doctor's Opinion & Date: Following an examination in May 2010, his endocrinologist certified, "In my medical opinion, Mr. Tettaton's diabetes deficiency is stable, and he is capable of performing the driving tasks required to operate a commercial motor vehicle and that the applicant's condition will not adversely affect his ability to operate a commercial motor vehicle safely."

Traffic Accidents and Violations: No accidents and one (1) violation, not in a commercial motor vehicle, within the past three (3) years.

Application #MP060814035

Renewal Applicant's Name & Age: Daniel A. Trejo, 38

Relevant Physical Condition: Mr. Trejo's best corrected visual acuity in his left eye is 20/20 Snellen and his best uncorrected visual acuity in his right eye is 20/200 Snellen. He has been diagnosed with amblyopia in his right eye. This impairment occurred at infancy.

Relevant Driving Experience: Mr. Trejo has been driving a commercial motor vehicle for the past four (4) years. He has been employed with a medical equipment company since 1998. Previous employment has not been related to driving a commercial motor vehicle. He currently has a Class E license. Drives personal vehicle(s) daily.

Doctor's Opinion & Date: Following an examination in July 2010, his optometrist certified, "In my medical opinion, Mr. Trejo's visual deficiency is stable, and he is capable of performing the driving tasks required to operate a commercial motor vehicle and that his condition will not adversely affect his ability to operate a commercial motor vehicle safely."

Traffic Accidents and Violations: No traffic accidents or violations in the past three (3) years.

Request for Comments

The Missouri Department of Transportation, Motor Carrier Services Division, pursuant to section 622.555, RSMo, and rule 7 CSR 10-25.010, requests public comment from all interested persons on the applications for issuance of Skill Performance Evaluation Certificates described in this notice. We will consider all comments received before the close of business on the closing date indicated earlier in this notice.

Issued on: December 1, 2010

Jan Skouby, Motor Carrier Services Director, Missouri Department of Transportation

**Title 19—DEPARTMENT OF HEALTH AND
SENIOR SERVICES
Division 60—Missouri Health Facilities Review
Committee
Chapter 50—Certificate of Need Program**

**NOTIFICATION OF REVIEW:
APPLICATION REVIEW SCHEDULE**

The Missouri Health Facilities Review Committee has initiated review of the expedited applications listed below. A decision is tentatively scheduled for January 21, 2011. These applications are available for public inspection at the address shown below:

Date Filed

Project Number: Project Name
City (County)
Cost, Description

12/07/10

#4593 RP: Blue Hills Rest Home
Independence (Jackson County)
\$7,200, Long-term care expansion through the purchase of 4 assisted living facility beds from Superior Park, Excelsior Springs (Clay County)

12/08/10

#4566 HT: Freeman Health System
Joplin (Newton County)
\$2,222,864, Replace positron emission tomography unit

12/10/10

#4601 NT: Life Care Center of Cape Girardeau
Cape Girardeau (Cape Girardeau County)
\$18,861,129, Replace 120-bed skilled nursing facility

Any person wishing to request a public hearing for the purpose of commenting on these applications must submit a written request to this effect, which must be received by January 12, 2011. All written requests and comments should be sent to—

Chairman
Missouri Health Facilities Review Committee
c/o Certificate of Need Program
3418 Knipp Drive, Suite F
Post Office Box 570
Jefferson City, MO 65102

For additional information, contact
Donna Schuessler, (573) 751-6403.

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION**

IN ADDITION

Pursuant to section 226.096, RSMo, regarding the Construction Claims Binding Arbitration Cap for the Missouri Department of Transportation, the Director of Insurance, Financial Institutions and Professional Registration is required to calculate the new limit.

Using Implicit Price Deflator (IPD) for Personal Consumption Expenditures (PCE), as required by section 226.096, RSMo, the Construction Claims Binding Arbitration Cap for the Missouri Department of Transportation effective January 1, 2011, was established by the following calculation:

Index Based on 2005 Dollars
Third Quarter 2009 IPD Index 109.596
Third Quarter 2010 IPD Index 111.163

New 2011 Limit = 2010 Limit × (2010 Index/2009 Index)

389,582 = 384,090 × (111.163/109.596)

**Title 20—DEPARTMENT OF INSURANCE,
FINANCIAL INSTITUTIONS AND PROFESSIONAL
REGISTRATION**

IN ADDITION

Pursuant to section 105.711, RSMo, regarding the State Legal Expense Fund, the Director of Insurance, Financial Institutions and Professional Registration is required to calculate the new limit.

Using Implicit Price Deflator (IPD) for Personal Consumption Expenditures (PCE), as required by section 105.711, RSMo, the State Legal Expense Fund Limit effective January 1, 2011, was established by the following calculation:

Index Based on 2005 Dollars
Third Quarter 2009 IPD Index 109.596
Third Quarter 2010 IPD Index 111.163

New 2011 Limit = 2010 Limit × (2010 Index/2009 Index)

398,521 = 392,903 × (111.163/109.596)

The Secretary of State is required by sections 347.141 and 359.481, RSMo 2000, to publish dissolutions of limited liability companies and limited partnerships. The content requirements for the one-time publishing of these notices are prescribed by statute. This listing is published pursuant to these statutes. We request that documents submitted for publication in this section be submitted in camera ready 8 1/2" x 11" manuscript by email to dissolutions@sos.mo.gov.

NOTICE OF WINDING UP

PLEASE TAKE NOTICE THAT **Ballas Cancer Center, L.L.C.**, a limited liability company, organized April, 30, 1998 in the State of Missouri (the "Company") has been dissolved in the State of Missouri effective November 17, 2010 and is winding up its business in Missouri.

Persons with claims against the Company should present them by furnishing to the Company (1) the amount of the claim, (2) the basis for the claim and (3) documentation of the claim.

Claims must be mailed to:

Diane Radford, M.D., Executive Manager

c/o Shannon Veltrop

Ballas Cancer Center, L.L.C.

15945 Clayton Road, Suite 120

Ballwin, MO 63011

A claim against the limited liability company will be barred unless a proceeding to enforce the claim is commenced within 3 years after publication of this notice.

BALLAS CANCER CENTER, L.L.C.

NOTICE OF DISSOLUTION OF LIMITED LIABILITY COMPANY

To all creditors of and claimants against

DREAM POOLS, LLC

A Missouri Limited Liability Company

On November 30, 2010, Dream Pools, LLC ("Company") filed its Notice of Winding Up with the Missouri Secretary of State. Effective on the filing date, claims against the Company should be sent to Company c/o James & Anita Vonallmen, P.O. Box 104, Clever, Missouri 65631.

Claims must include claimant's name, address, phone number, amount of the claim, basis for the claim, and documentation of the claim. A claim against the Company will be barred unless a proceeding to enforce the claim is commenced within three (3) years after the publication of this notice.

Notice of Corporate Dissolution
To All Creditors of and Claimants Against
CEband, L.L.C.

On November 19, 2010, CEband, L.L.C., a Missouri corporation, filed its Articles of Dissolution with the Missouri Secretary of State. Dissolution will be effective on December 31, 2010.

Said corporation requests that all persons and organizations who have claims against it present them immediately by letter to the corporation at:

CEband, LLC
4200 Somerset, Suite 209
Prairie Village, KS 66208

All claims must include the name and address of the claimant; the amount claimed; the basis for the claim; and the date(s) on which the event(s) on which the claim is based occurred.

NOTICE: Because of the dissolution of CEband, LLC, any claims against it will be barred unless a proceeding to enforce the claim is commenced within two years after the publication date of the two notices authorized by statute, whichever is published last.

Rule Changes Since Update to Code of State Regulations

This cumulative table gives you the latest status of rules. It contains citations of rulemakings adopted or proposed after deadline for the monthly Update Service to the *Code of State Regulations*, citations are to volume and page number in the *Missouri Register*, except for material in this issue. The first number in the table cite refers to the volume number or the publication year—30 (2005) and 31 (2006). MoReg refers to *Missouri Register* and the numbers refer to a specific *Register* page, R indicates a rescission, W indicates a withdrawal, S indicates a statement of actual cost, T indicates an order terminating a rule, N.A. indicates not applicable, RAN indicates a rule action notice, RUC indicates a rule under consideration, and F indicates future effective date.

Rule Number	Agency	Emergency	Proposed	Order	In Addition
1 CSR 10	OFFICE OF ADMINISTRATION State Officials' Salary Compensation Schedule				30 MoReg 2435 35 MoReg 1815
1 CSR 15-3.290	Administrative Hearing Commission		35 MoReg 1381		
1 CSR 15-3.350	Administrative Hearing Commission	35 MoReg 1367	35 MoReg 1381		
1 CSR 15-3.380	Administrative Hearing Commission	35 MoReg 1367	35 MoReg 1382		
1 CSR 15-3.431	Administrative Hearing Commission		35 MoReg 1382		
1 CSR 15-3.436	Administrative Hearing Commission	35 MoReg 1368	35 MoReg 1383		
1 CSR 15-3.446	Administrative Hearing Commission	35 MoReg 1368	35 MoReg 1383		
1 CSR 15-3.480	Administrative Hearing Commission		35 MoReg 1384		
1 CSR 15-3.490	Administrative Hearing Commission	35 MoReg 1369	35 MoReg 1384		
1 CSR 15-3.500	Administrative Hearing Commission		35 MoReg 1384		
1 CSR 15-3.560	Administrative Hearing Commission		35 MoReg 1385		
1 CSR 20-1.010	Personnel Advisory Board and Division of Personnel	35 MoReg 1369	35 MoReg 1385		
1 CSR 20-1.030	Personnel Advisory Board and Division of Personnel	35 MoReg 1370	35 MoReg 1386		
1 CSR 20-2.015	Personnel Advisory Board and Division of Personnel	35 MoReg 1370	35 MoReg 1386		
1 CSR 20-3.010	Personnel Advisory Board and Division of Personnel	35 MoReg 1371	35 MoReg 1387		
1 CSR 20-3.020	Personnel Advisory Board and Division of Personnel	35 MoReg 1372	35 MoReg 1387		
1 CSR 20-3.030	Personnel Advisory Board and Division of Personnel	35 MoReg 1372	35 MoReg 1388		
1 CSR 20-3.070	Personnel Advisory Board and Division of Personnel	35 MoReg 1373	35 MoReg 1388		
1 CSR 20-3.080	Personnel Advisory Board and Division of Personnel	35 MoReg 1374	35 MoReg 1390		
1 CSR 20-4.010	Personnel Advisory Board and Division of Personnel	35 MoReg 1375	35 MoReg 1390		
1 CSR 20-4.020	Personnel Advisory Board and Division of Personnel	35 MoReg 1379	35 MoReg 1394		
1 CSR 50-3.010	Missouri Ethics Commission	35 MoReg 1379	35 MoReg 1400		
DEPARTMENT OF AGRICULTURE					
2 CSR 30-1.010	Animal Health		35 MoReg 1845		
2 CSR 30-2.010	Animal Health		35 MoReg 1845		
2 CSR 30-2.020	Animal Health		35 MoReg 1846		
2 CSR 70-11.060	Plant Industries	35 MoReg 721	35 MoReg 756 35 MoReg 1453	35 MoReg 1852	
2 CSR 90	Weights and Measures				35 MoReg 1284
2 CSR 110-3.010	Office of the Director		35 MoReg 1848		
DEPARTMENT OF CONSERVATION					
3 CSR 10-4.117	Conservation Commission		35 MoReg 1533		
3 CSR 10-5.225	Conservation Commission		35 MoReg 1533		
3 CSR 10-5.436	Conservation Commission		35 MoReg 1534		
3 CSR 10-5.567	Conservation Commission		35 MoReg 1534		
3 CSR 10-6.410	Conservation Commission		35 MoReg 1534		
3 CSR 10-6.505	Conservation Commission		35 MoReg 1400	35 MoReg 1802	
3 CSR 10-6.525	Conservation Commission		35 MoReg 1535		
3 CSR 10-6.535	Conservation Commission		35 MoReg 1401	35 MoReg 1802	
3 CSR 10-6.605	Conservation Commission		35 MoReg 1535		
3 CSR 10-7.410	Conservation Commission		35 MoReg 1535		
3 CSR 10-7.431	Conservation Commission		35 MoReg 1536		
3 CSR 10-7.432	Conservation Commission		35 MoReg 1536		
3 CSR 10-7.438	Conservation Commission		35 MoReg 1537		
3 CSR 10-7.445	Conservation Commission		35 MoReg 1537		
3 CSR 10-7.455	Conservation Commission		35 MoReg 1537		35 MoReg 316
3 CSR 10-8.510	Conservation Commission		35 MoReg 1538		
3 CSR 10-9.105	Conservation Commission		35 MoReg 1538		
3 CSR 10-9.110	Conservation Commission		35 MoReg 1541		
3 CSR 10-9.430	Conservation Commission		35 MoReg 1542		
3 CSR 10-9.440	Conservation Commission		35 MoReg 1542		
3 CSR 10-9.442	Conservation Commission		35 MoReg 1542		

Rule Number	Agency	Emergency	Proposed	Order	In Addition
3 CSR 10-11.130	Conservation Commission		35 MoReg 1246	35 MoReg 1694	
3 CSR 10-11.155	Conservation Commission		35 MoReg 1545		
3 CSR 10-11.160	Conservation Commission		35 MoReg 1545		
3 CSR 10-11.180	Conservation Commission		35 MoReg 1545		
3 CSR 10-11.181	Conservation Commission		35 MoReg 1546		
3 CSR 10-11.182	Conservation Commission		35 MoReg 1547		
3 CSR 10-11.205	Conservation Commission		35 MoReg 1547		
3 CSR 10-11.210	Conservation Commission		35 MoReg 1547		
3 CSR 10-11.215	Conservation Commission		35 MoReg 1548		
3 CSR 10-12.110	Conservation Commission		35 MoReg 1401	35 MoReg 1802	
3 CSR 10-12.115	Conservation Commission		35 MoReg 1402	35 MoReg 1802	
3 CSR 10-12.125	Conservation Commission		35 MoReg 1402	35 MoReg 1803	
3 CSR 10-12.140	Conservation Commission		35 MoReg 1403	35 MoReg 1803	
3 CSR 10-12.145	Conservation Commission		35 MoReg 1404	35 MoReg 1803	
3 CSR 10-12.155	Conservation Commission		35 MoReg 1405	35 MoReg 1803	
DEPARTMENT OF ECONOMIC DEVELOPMENT					
4 CSR 170-2.010	Missouri Housing Development Commission		35 MoReg 963R	35 MoReg 1803R	
4 CSR 170-2.100	Missouri Housing Development Commission		35 MoReg 963	35 MoReg 1803	
4 CSR 170-3.010	Missouri Housing Development Commission		35 MoReg 964R	35 MoReg 1804R	
4 CSR 170-3.100	Missouri Housing Development Commission		35 MoReg 964	35 MoReg 1804	
4 CSR 170-3.200	Missouri Housing Development Commission		35 MoReg 964	35 MoReg 1804	
4 CSR 170-4.010	Missouri Housing Development Commission		35 MoReg 965R	35 MoReg 1804R	
4 CSR 170-4.100	Missouri Housing Development Commission		35 MoReg 965	35 MoReg 1804	
4 CSR 170-4.200	Missouri Housing Development Commission		35 MoReg 966	35 MoReg 1804	
4 CSR 170-4.300	Missouri Housing Development Commission		35 MoReg 966	35 MoReg 1805	
4 CSR 170-5.010	Missouri Housing Development Commission		35 MoReg 967R	35 MoReg 1805R	
4 CSR 170-5.020	Missouri Housing Development Commission		35 MoReg 968R	35 MoReg 1805R	
4 CSR 170-5.030	Missouri Housing Development Commission		35 MoReg 968R	35 MoReg 1805R	
4 CSR 170-5.040	Missouri Housing Development Commission		35 MoReg 968R	35 MoReg 1805R	
4 CSR 170-5.050	Missouri Housing Development Commission		35 MoReg 969R	35 MoReg 1805R	
4 CSR 170-5.100	Missouri Housing Development Commission		35 MoReg 969	35 MoReg 1806	
4 CSR 170-5.200	Missouri Housing Development Commission		35 MoReg 970	35 MoReg 1806	
4 CSR 170-5.300	Missouri Housing Development Commission		35 MoReg 971	35 MoReg 1806	
4 CSR 170-5.400	Missouri Housing Development Commission		35 MoReg 971	35 MoReg 1806	
4 CSR 170-5.500	Missouri Housing Development Commission		35 MoReg 973	35 MoReg 1806	
4 CSR 170-6.010	Missouri Housing Development Commission		35 MoReg 973R	35 MoReg 1806R	
4 CSR 170-6.100	Missouri Housing Development Commission		35 MoReg 974	35 MoReg 1807	
4 CSR 170-6.200	Missouri Housing Development Commission		35 MoReg 975	35 MoReg 1807	
4 CSR 240-3.163	Public Service Commission		35 MoReg 1610		
4 CSR 240-3.164	Public Service Commission		35 MoReg 1629		
4 CSR 240-3.510	Public Service Commission		35 MoReg 1736		
4 CSR 240-20.093	Public Service Commission		35 MoReg 1647		
4 CSR 240-20.094	Public Service Commission		35 MoReg 1667		
4 CSR 240-22.010	Public Service Commission		35 MoReg 1737		
4 CSR 240-22.020	Public Service Commission		35 MoReg 1738		
4 CSR 240-22.030	Public Service Commission		35 MoReg 1741		
4 CSR 240-22.040	Public Service Commission		35 MoReg 1746		
4 CSR 240-22.045	Public Service Commission		35 MoReg 1749		
4 CSR 240-22.050	Public Service Commission		35 MoReg 1753		
4 CSR 240-22.060	Public Service Commission		35 MoReg 1761		
4 CSR 240-22.070	Public Service Commission		35 MoReg 1766		
4 CSR 240-22.080	Public Service Commission		35 MoReg 1769		
4 CSR 240-32.190	Public Service Commission		35 MoReg 1848		This Issue
4 CSR 240-123.080	Public Service Commission		35 MoReg 1686		
4 CSR 240-125.090	Public Service Commission		35 MoReg 1686		
DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION					
5 CSR 50-270.010	Division of School Improvement		35 MoReg 210	35 MoReg 1694	
			35 MoReg 1019		
5 CSR 50-321.010	Division of School Improvement		35 MoReg 857R		
5 CSR 50-350.040	Division of School Improvement		35 MoReg 1080R		
DEPARTMENT OF TRANSPORTATION					
7 CSR 10-16.010	Missouri Highways and Transportation Commission		35 MoReg 1173R		
7 CSR 10-16.020	Missouri Highways and Transportation Commission		35 MoReg 1173R		
			35 MoReg 1173		
7 CSR 10-16.025	Missouri Highways and Transportation Commission		35 MoReg 1174		
7 CSR 10-16.030	Missouri Highways and Transportation Commission		35 MoReg 1174R		
7 CSR 10-16.035	Missouri Highways and Transportation Commission		35 MoReg 1175		
7 CSR 10-16.040	Missouri Highways and Transportation Commission		35 MoReg 1178R		
7 CSR 10-16.045	Missouri Highways and Transportation Commission		35 MoReg 1178		
7 CSR 10-16.050	Missouri Highways and Transportation Commission		35 MoReg 1180		
7 CSR 10-25.010	Missouri Highways and Transportation Commission				35 MoReg 1818 This Issue
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS					
8 CSR 30-3.060	Division of Labor Standards		35 MoReg 1405		

Rule Number	Agency	Emergency	Proposed	Order	In Addition
9 CSR 30-4.045	DEPARTMENT OF MENTAL HEALTH Certification Standards	35 MoReg 1017	35 MoReg 1022	35 MoReg 1807	
	DEPARTMENT OF NATURAL RESOURCES				
10 CSR 10-5.330	Air Conservation Commission		This Issue		
10 CSR 10-5.340	Air Conservation Commission		This Issue		
10 CSR 10-5.442	Air Conservation Commission		This Issue		
10 CSR 10-5.455	Air Conservation Commission		This Issue		
10 CSR 10-5.480	Air Conservation Commission		35 MoReg 1080	This Issue	
10 CSR 10-6.020	Air Conservation Commission		35 MoReg 858	35 MoReg 1575	
			This Issue		
10 CSR 10-6.060	Air Conservation Commission		This Issue		
10 CSR 10-6.065	Air Conservation Commission		This Issue		
10 CSR 10-6.070	Air Conservation Commission		35 MoReg 1091	This Issue	
10 CSR 10-6.075	Air Conservation Commission		35 MoReg 1092	This Issue	
10 CSR 10-6.080	Air Conservation Commission		35 MoReg 1094	This Issue	
10 CSR 10-6.200	Air Conservation Commission		This Issue		
10 CSR 10-6.400	Air Conservation Commission		35 MoReg 1095	This Issue	
10 CSR 20-8.110	Clean Water Commission		35 MoReg 1454		
10 CSR 23-4.010	Division of Geology and Land Survey		This Issue		
10 CSR 23-4.020	Division of Geology and Land Survey		This Issue		
10 CSR 23-4.030	Division of Geology and Land Survey		This Issue		
10 CSR 23-4.040	Division of Geology and Land Survey		This IssueR		
10 CSR 23-4.050	Division of Geology and Land Survey		This Issue		
10 CSR 23-4.060	Division of Geology and Land Survey		This Issue		
10 CSR 23-4.070	Division of Geology and Land Survey		This IssueR		
10 CSR 23-4.080	Division of Geology and Land Survey		This Issue		
10 CSR 60-4.025	Safe Drinking Water Commission		35 MoReg 769	35 MoReg 1575	
10 CSR 60-5.010	Safe Drinking Water Commission		35 MoReg 778	35 MoReg 1578	
10 CSR 60-7.010	Safe Drinking Water Commission		35 MoReg 778	35 MoReg 1578	
10 CSR 60-8.010	Safe Drinking Water Commission		35 MoReg 781	35 MoReg 1579	
10 CSR 60-8.030	Safe Drinking Water Commission		35 MoReg 785	35 MoReg 1579	
10 CSR 60-9.010	Safe Drinking Water Commission		35 MoReg 793	35 MoReg 1579	
10 CSR 70-4.010	Soil and Water Districts Commission		35 MoReg 214R		
			35 MoReg 214		
10 CSR 70-5.010	Soil and Water Districts Commission	34 MoReg 1779	35 MoReg 216R		
			35 MoReg 216		
10 CSR 70-5.040	Soil and Water Districts Commission	34 MoReg 1783	35 MoReg 217R		
			35 MoReg 217		
10 CSR 70-5.050	Soil and Water Districts Commission	34 MoReg 1785	35 MoReg 217R		
			35 MoReg 217		
10 CSR 70-5.060	Soil and Water Districts Commission	34 MoReg 1786	35 MoReg 219R		
			35 MoReg 219		
10 CSR 140-2.010	Division of Energy	35 MoReg 1523	35 MoReg 1548		
10 CSR 140-2.020	Division of Energy	35 MoReg 1525	35 MoReg 1550		
10 CSR 140-2.030	Division of Energy	35 MoReg 1527R	35 MoReg 1554R		
10 CSR 140-8.010	Division of Energy		35 MoReg 1022	35 MoReg 1807	
	DEPARTMENT OF PUBLIC SAFETY				
11 CSR 45-1.010	Missouri Gaming Commission		35 MoReg 1095	35 MoReg 1811	
11 CSR 45-1.090	Missouri Gaming Commission		35 MoReg 1246	This Issue	
11 CSR 45-4.020	Missouri Gaming Commission		35 MoReg 1247	This Issue	
11 CSR 45-5.051	Missouri Gaming Commission		35 MoReg 1249	This Issue	
11 CSR 45-5.075	Missouri Gaming Commission		35 MoReg 1250	This Issue	
11 CSR 45-5.130	Missouri Gaming Commission		35 MoReg 1780		
11 CSR 45-5.200	Missouri Gaming Commission		35 MoReg 1250	This Issue	
11 CSR 45-5.300	Missouri Gaming Commission		35 MoReg 1251	This Issue	
11 CSR 45-7.070	Missouri Gaming Commission		35 MoReg 1780		
11 CSR 45-9.102	Missouri Gaming Commission		35 MoReg 1781		
11 CSR 45-9.105	Missouri Gaming Commission		35 MoReg 1781		
11 CSR 45-9.113	Missouri Gaming Commission		35 MoReg 1096	35 MoReg 1812	
11 CSR 45-9.114	Missouri Gaming Commission		35 MoReg 1098	35 MoReg 1812	
11 CSR 45-9.115	Missouri Gaming Commission		35 MoReg 975	35 MoReg 1579	
11 CSR 45-9.118	Missouri Gaming Commission		35 MoReg 1098	35 MoReg 1812	
11 CSR 45-9.119	Missouri Gaming Commission		35 MoReg 1781		
11 CSR 45-9.121	Missouri Gaming Commission		35 MoReg 1787		
11 CSR 45-9.122	Missouri Gaming Commission		35 MoReg 1787		
11 CSR 45-12.090	Missouri Gaming Commission		This Issue		
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1 CSR 15-3.436 Involuntary Dismissal	.35 MoReg 1368	Sept. 9, 2010	March 7, 2011
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12 CSR 10-41.010 Annual Adjusted Rate of Interest	.35 MoReg 1735	Jan. 1, 2011	June 29, 2011
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20 CSR 2120-2.100 Fees35 MoReg 1242 . . .	Aug. 5, 2010 . . .	Feb. 24, 2011
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20 CSR 2150-2.080 Fees	This Issue	Nov. 29, 2010 . . .	May 27, 2011
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20 CSR 2220-2.005 Definitions35 MoReg 1451 . . .	Sept. 13, 2010 . . .	March 11, 2011
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20 CSR 2263-2.031 Acceptable Supervisors and Supervisor Responsibilities35 MoReg 1310 . . .	Aug. 28, 2010 . . .	Feb. 24, 2011
20 CSR 2263-2.045 Provisional Licenses35 MoReg 1311 . . .	Aug. 28, 2010 . . .	Feb. 24, 2011
20 CSR 2263-2.050 Application for Licensure as a Social Worker35 MoReg 1312 . . .	Aug. 28, 2010 . . .	Feb. 24, 2011

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Emergency Declaration	Proclaims an emergency declaration concerning the damage and structural integrity of the State Route A bridge over the Weldon Fork of the Thompson River	Sept. 28, 2010	35 MoReg 1531
10-26	Designates members of the governor's staff to have supervisory authority over certain departments, divisions, and agencies	Sept. 24, 2010	35 MoReg 1529
10-25	Extends the declaration of emergency contained in Executive Order 10-22 for the purpose of protecting the safety and welfare of our fellow Missourians	July 20, 2010	35 MoReg 1244
10-24	Creates the Code of Fair Practices for the Executive Branch of State Government and supersedes paragraph one of Executive Order 05-30	July 9, 2010	35 MoReg 1167
Emergency Declaration	Proclaims that an emergency exists concerning the damage and structural integrity of the U.S. Route 24 bridge over the Grand River	July 2, 2010	35 MoReg 1165
10-23	Activates the state militia in response to severe weather that began on June 12	June 23, 2010	35 MoReg 1078
10-22	Declares a state of emergency and directs the Missouri State Emergency Operations Plan be activated due to severe weather that began on June 12	June 21, 2010	35 MoReg 1076
10-21	Activates the Missouri State Emergency Operations Center	June 15, 2010	35 MoReg 1018
10-20	Establishes the Missouri Civil War Sesquicentennial Commission	April 2, 2010	35 MoReg 754
10-19	Amends Executive Order 09-17 to give the commissioner of the Office of Administration supervisory authority over the Transform Missouri Project	March 2, 2010	35 MoReg 637
10-18	Establishes the Children in Nature Challenge to challenge Missouri communities to take action to enhance children's education about nature, and to increase children's opportunities to personally experience nature and the outdoors	Feb. 26, 2010	35 MoReg 573
10-17	Establishes a Missouri Emancipation Day Commission to promote, consider, and recommend appropriate activities for the annual recognition and celebration of Emancipation Day	Feb. 2, 2010	35 MoReg 525
10-16	Transfers the scholarship portion of the A+ Schools Program from the Missouri Department of Elementary and Secondary Education to the Missouri Department of Higher Education	Jan. 29, 2010	35 MoReg 447
10-15	Transfers the Breath Alcohol Program from the Missouri Department of Transportation to the Missouri Department of Health and Senior Services	Jan. 29, 2010	35 MoReg 445
10-14	Designates members of the governor's staff to have supervisory authority over certain departments, divisions, and agencies	Jan. 29, 2010	35 MoReg 443
10-13	Directs the Department of Social Services to disband the Missouri Task Force on Youth Aging Out of Foster Care	Jan. 15, 2010	35 MoReg 364
10-12	Rescinds Executive Orders 98-14, 95-21, 95-17, and 94-19 and terminates the Governor's Commission on Driving While Intoxicated and Impaired Driving	Jan. 15, 2010	35 MoReg 363
10-11	Rescinds Executive Order 05-41 and terminates the Governor's Advisory Council for Veterans Affairs and assigns its duties to the Missouri Veterans Commission	Jan. 15, 2010	35 MoReg 362
10-10	Rescinds Executive Order 01-08 and terminates the Personal Independence Commission and assigns its duties to the Governor's Council on Disability	Jan. 15, 2010	35 MoReg 361
10-09	Rescinds Executive Orders 95-10, 96-11, and 98-13 and terminates the Governor's Council on AIDS and transfers their duties to the Statewide HIV/STD Prevention Community Planning Group within the Department of Health and Senior Services	Jan. 15, 2010	35 MoReg 360
10-08	Rescinds Executive Order 04-07 and terminates the Missouri Commission on Patient Safety	Jan. 15, 2010	35 MoReg 358
10-07	Rescinds Executive Order 01-16 and terminates the Missouri Commission on Intergovernmental Cooperation	Jan. 15, 2010	35 MoReg 357
10-06	Rescinds Executive Order 05-13 and terminates the Governor's Advisory Council on Plant Biotechnology and assigns its duties to the Missouri Technology Corporation	Jan. 15, 2010	35 MoReg 356
10-05	Rescinds Executive Order 95-28 and terminates the Missouri Board of Geographic Names	Jan. 15, 2010	35 MoReg 355
10-04	Rescinds Executive Order 03-10 and terminates the Missouri Energy Policy Council	Jan. 15, 2010	35 MoReg 354
10-03	Rescinds Executive Order 03-01 and terminates the Missouri Lewis and Clark Bicentennial Commission	Jan. 15, 2010	35 MoReg 353

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35 MoReg 352

10-01Rescinds Executive Order 01-15 and terminates the Missouri Commission
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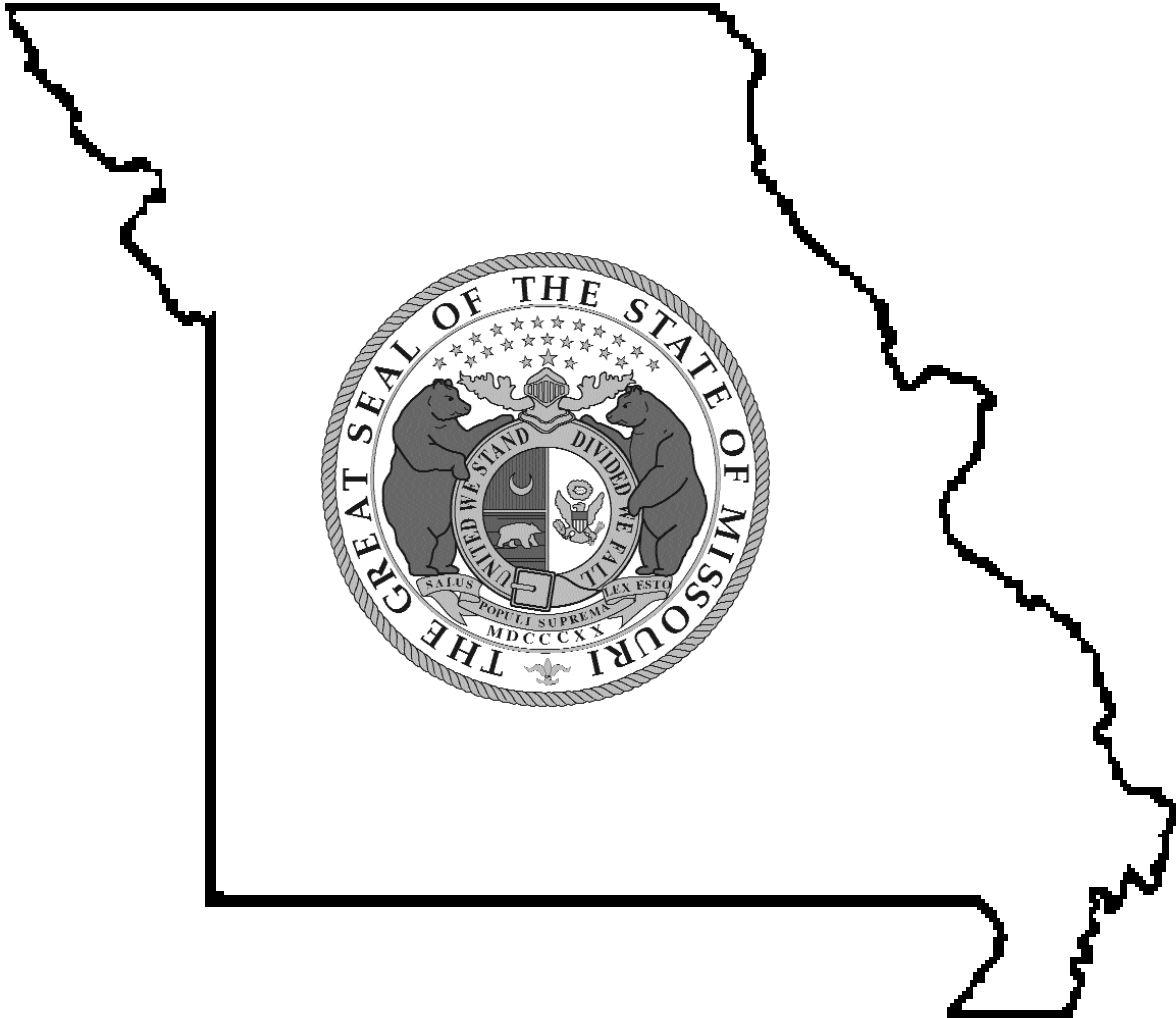
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